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ABSTRACT

An intensive study of the K-12 instructional program of the Strongsville, Ohio, City School District was conducted during the 1974-1975 school year by the Educational Research Council of America. Survey teams gathered data and developed recommendations and suggestions for strengthening each subject area within the instruction program. The mental health program and pupil personnel services were also examined, and recommendations and suggestions for improvement were offered. Results of the analyses showed that Strongsville's instructional program provided its children with an adequate school career. The Strongsville school system, challenged with the problems of a growing suburban school district, needs to concern itself with accommodation to change and planning of revision so that its instructional program can keep pace with its growth as well as educational innovation. Among the elementary schools, the science and social science programs were considered good. The junior high schools' programs in languages, occupational education, science and social science programs were also good, and the services rendered by the library were excellent. At the high school, the mathematics program was rated as excellent, and the language arts and social science programs had the potential for excellence with some revision. The physical education and health programs, however, were limited at all levels. The rest of the subject area programs ranged from fair to good. Two hundred and twenty-eight specific recommendations and suggestions were made for improving Strongsville's curriculum. (RC)

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PREFACE

> Such fathers as commit their sons to tutors and teachers, and themselves never at all witness or overhear their instructions, deserve rebuke, for they fall far short of their obligation. They ought themselves to undertake examination of their children every few days and not place their trust in the disposition of a wage earner; even the latter will bestow greater care on the children if they know that they will periodically be called to account. Here the witty saying of the hostler is apt: nothing fattens the King's horse so much as the King's eye.
>
> Plutarch, Education of Children

Every board of education is certain that the problems it faces are more complex and more difficult to solve than those of its predecessors. Despite this belief, boards of education often look to their pasts to solve problems of the present, and while reviewing the past, new problems emerge. The evaluation of an instructional program is analogous. Instructional programs and materials are becoming more diverse, more sophisticated, and more comprehensive. The assessment of such programs requires equally diverse, sophisticated, and comprehensive means. While time is spent analyzing the present, new materials make the present obsolete. In this way, the learning environment changes constantly and rapidly. The school of today's child is startlingly different from that of yesterday's. The children of

tomorrow will experience even more exciting changes.

The rate of change in modern school systems is so great that administrators rarely have time to plan, coordinate, and conduct meaningful instructional program evaluations. As Goodlad (1966) suggests, the modern school system is wise to secure the assistance of an external resource. This is particularly true when school staffs are required to expend their energies just maintaining the instructional program. It was perhaps in recognition of Goodlad's suggestion that Dr. Edwin Boy, Superintendent of the Strongsville City Schools, requested, in June, 1974, that the Educational Research Council of America conduct an evaluation of Strongsville's instructional program. The Strongsville Board of Education, its administrators, and its staff are commended for their desire for this evaluation.

This instructional program evaluation report is presented in three sections. Section I describes the Strongsville community, its schools, and its curriculum. It also describes how the evaluation was conducted. Section II reviews the instructional program by subject area. Each subject area is presented alphabetically and is followed by suggestions and recommendations for improvement. Where certain aspects of the program are found to be outstanding, special commendation is given. Section III provides a summary of the total report. It also provides a list of suggestions and recommendations for general K-12 improvements.

Many persons were involved in the preparation of this report. The

Educational Research Council is especially grateful for the cooperation and time given by the Strongsville staff: its teachers, administrators, and numerous others concerned with the education of Strongsville's children.

Lawrence J. Marquit, Director
Department of Evaluation and Research
Educational Research Council of America
Cleveland, Ohio, September, 1975

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Abstract

An intensive study of the K-12 instructional program of the Strongsville, Ohio, City School District was conducted during the 1974-1975 school year.

Survey teams from the Educational Research Council of America visited the Strongsville schools numerous times during the evaluation study. These teams gathered data and developed recommendations and suggestions for strengthening each subject area within the instructional program, namely, humanities, language arts, foreign languages, mathematics, occupational education (including business education, industrial arts, homemaking, and vocational education), physical and health education, science, and social science. The mental health program and pupil personnel services were also examined, and recommendations and suggestions for improvement were offered.

Results of the analyses showed that Strongsville's instructional program provided its children with an adequate school career. The Strongsville school system, challenged with the problems of a growing suburban school district, needs to concern itself with accommodation to change and planning of revision so that its instructional program can keep pace with its growth as well as educational innovation. In these days of knowledge explosions and accelerated technological changes, a dynamic school system must be willing to be a process; it needs to provide for continual and knowledgeable evaluation and revision.

Among the elementary schools, the science and social science programs were considered good. The junior high schools' programs in languages, occupational education, science and social science programs were also good, and the services rendered by the library were excellent. At the high school, the mathematics program was rated as excellent, and the language arts and social science programs had the potential for excellence with some revision. The physical education and health programs, however, were limited at all levels. The rest of the subject area programs ranged from fair to good. Two hundred and twenty-eight specific recommendations and suggestions were made for improving Strongsville's curriculum.

SECTION I: STRONGSVILLE IN PERSPECTIVE

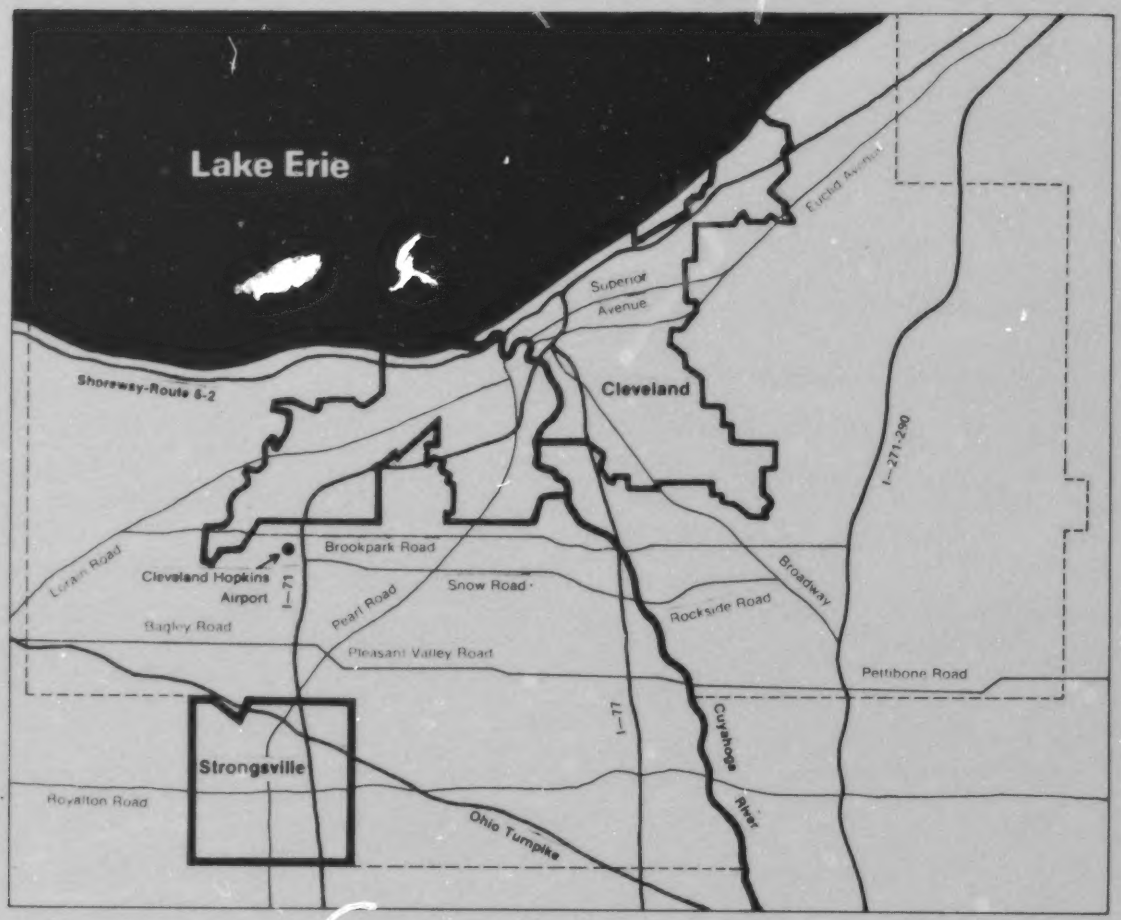
This Section has three parts. The first part describes briefly the Strongsville City School District and its instructional program. The second part provides an overview of some evaluation procedures and how they are related to this report. The third part describes the evaluation procedures used by the Survey Staff in the present report.

Part 1

The Strongsville City School District

In comparison to other city school districts in the State of Ohio, Strongsville had a smaller than average ADM (average daily membership) in the 1973-1974 school year, the most recent data available for the State. In that year Strongsville had an ADM of 4716.11, while the average Ohio city ADM was 7713.44. The average ADM for twenty-six Cuyahoga County city school districts was 11,648.13. The lowest city ADM in the County was Orange, with 283.68, and the highest was Cleveland, with 133,359.64. According to these data, Strongsville is a small-to-medium-size city school district. Figure 1 shows the location of Strongsville in relation to the Cleveland Standard Metropolitan Statistical Area, politically defined as comprising Cuyahoga and Lake Counties.

Figure 1. — Strongsville in Relation to the Cleveland Standard Metropolitan Statistical Area



Strongsville City

Strongsville has several major industries, including a research center, a textbook publisher, and a sales corporation. Large industrial parks encourage the expansion of business and industry. Nearby is Lewis Research Center of N.A.S.A. which, along with the business and commercial growth, has brought many professionals to Strongsville.

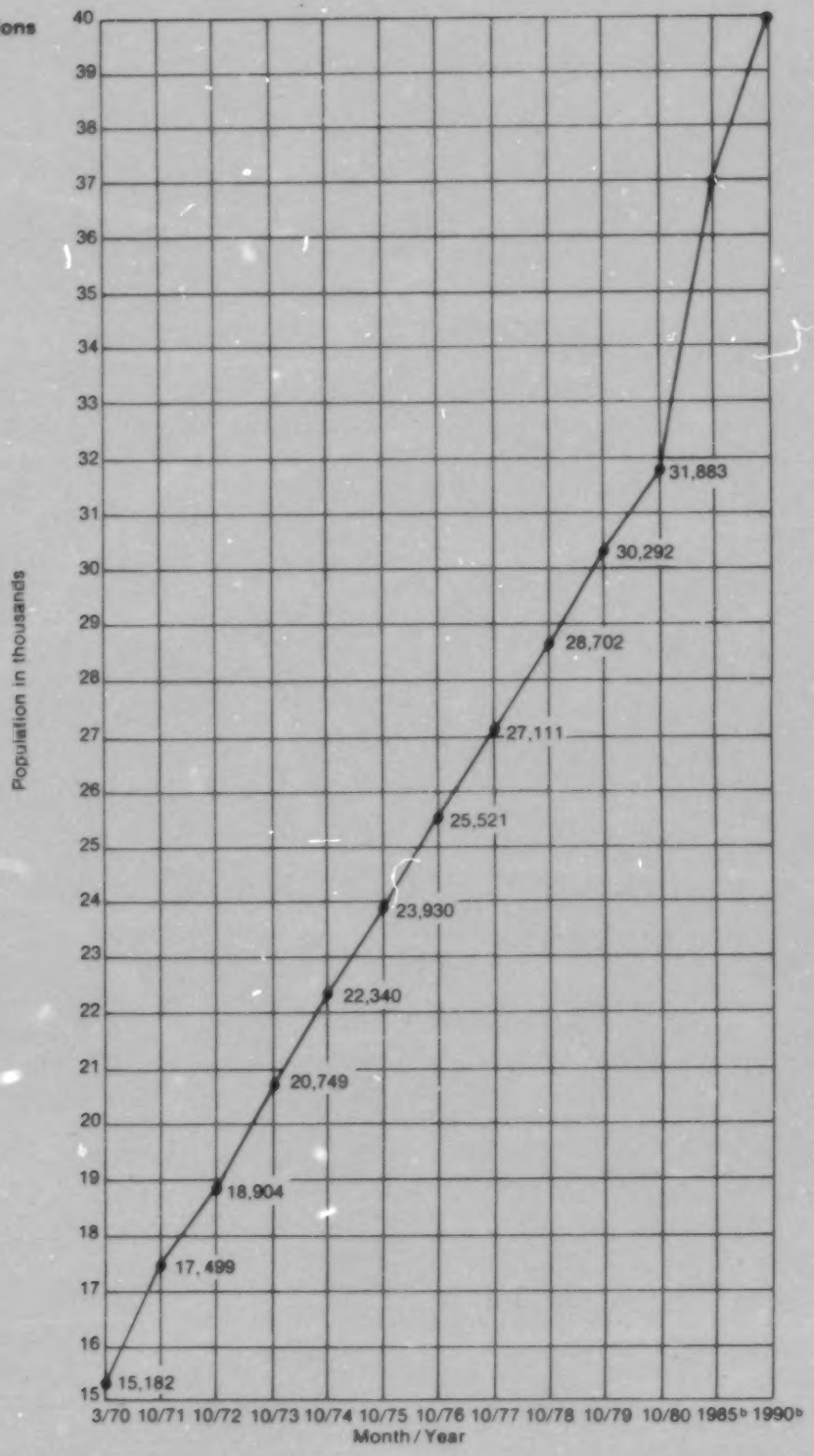
Another growth factor is Strongsville's accessibility. It is close to the Cleveland-Hopkins Airport and a portion of the Baltimore and Ohio Railroad runs through the western part of the city. Parts of the Ohio Turnpike and I-71, both major interstate motor routes, are also in Strongsville. State Routes 237 and 82 and U.S. Route 42 add to the city's access by car and truck. This ease of transportation facilitates resident work in and around Strongsville.

Strongsville has one Catholic and seven Protestant churches. It has thirteen civic and service organizations and numerous cultural, fraternal, and political groups. Public services include a fire department, police, and public welfare. Health services are also readily available and include a hospital and an environmental health program. The numerous municipal services, such as rubbish collection, sewage treatment, and street maintenance, combined with those factors already mentioned, contribute to a stable and active community.

Population Estimates

Figure 2 shows past and projected population data for the School District. These data, compiled from the 1970 U.S. Census and the

Figure 2. Actual and Projected Populations Strongsville, Ohio October, 1970-1980a



a "Sheet-A-Week", Vol. XLI, May 17, 1974 and April 26, 1974

b Cleveland Regional Planning Commission, 1972

Real Property Inventory of Metropolitan Cleveland, indicate a steady population increase at the rate of about 1600 persons per year. It is estimated that Strongsville's population will be nearly 32,000 by 1980.

In 1972, the Cleveland Regional Planning Commission (RPC) projected Strongsville's population to be 23,000 by 1975. This projection was less than the current estimate of 23,930 by Cleveland's Real Property Inventory for 1975. The RPC also projected Strongsville's population to be 28,000 by 1980, 37,000 by 1985, and 40,000 by 1990. If these estimates become true, Strongsville will be the seventh largest suburb in Greater Cleveland by 1990. In 1970 Strongsville ranked 22nd. By 1980 it is estimated to rank 13th.

Enrollment Estimates

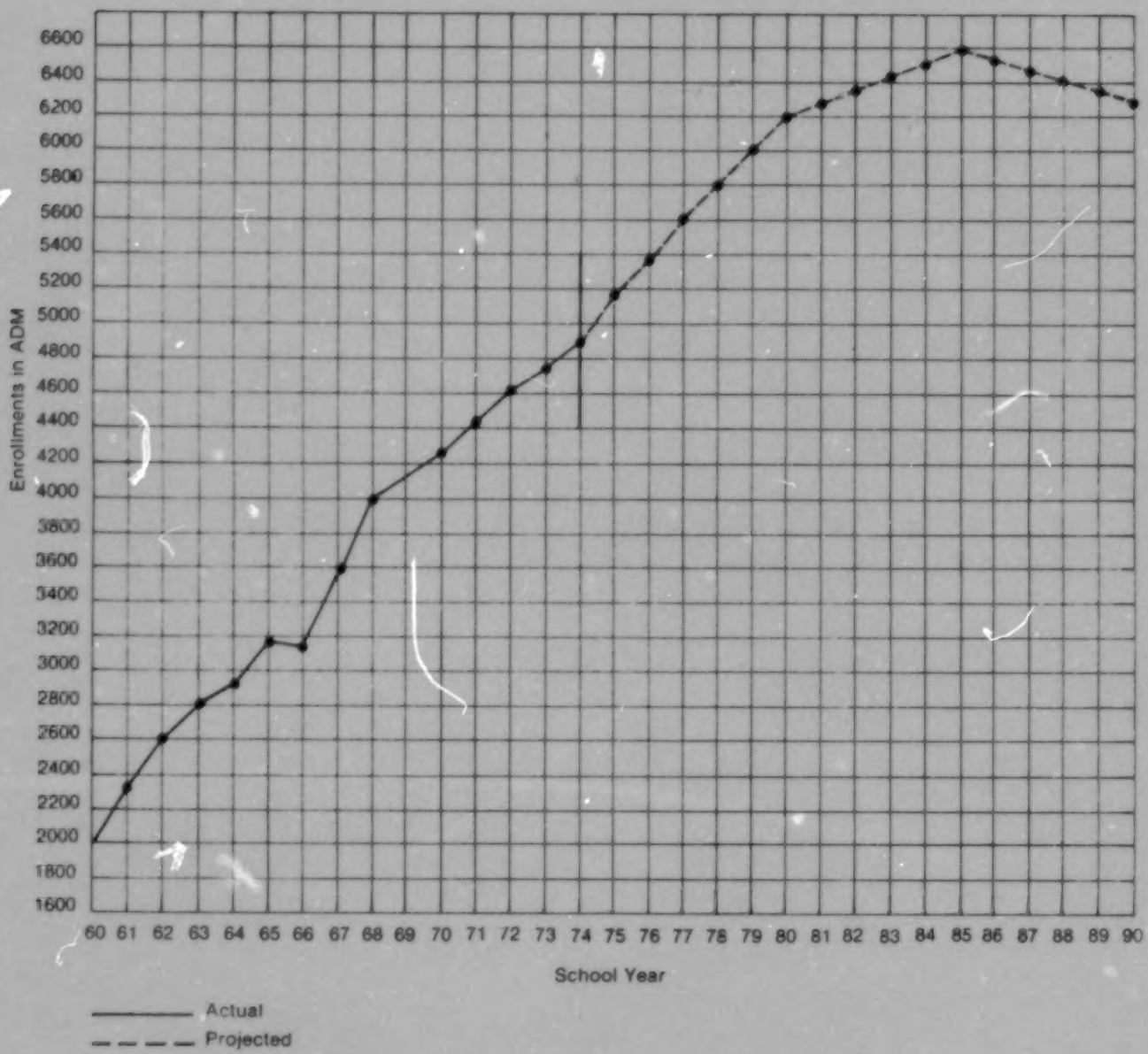
The population growth in Strongsville was accompanied by growth in school enrollments. Since the 1959-1960 school year, Strongsville's ADM has increased considerably. Table 1 shows Strongsville's ADM's for each year since 1959 as reported to the State Department of Education. Figure 3 shows how the District's enrollment has increased and what the estimates are for the future. Growth has been steady since 1960. During the five-year period 1960-1964, enrollments rose from 1,945 to 2,855, an increase of 910 children or nearly 47 percent. From 1964-1968, enrollment grew to 3,928, an increase of 1,073, or nearly 38 percent. The next five-year period, 1968-1972, showed an increase of 676 children, or only

Table 1. -- Average Daily Memberships for Strongsville City Schools*

School Year	Average Daily Membership*	Percent Increase
1959-1960	1754	--
1960-1961	1945	10.9
1961-1962	2273	16.9
1962-1963	2588	13.9
1963-1964	2776	7.3
1964-1965	2856	2.9
1965-1966	3176	11.2
1966-1967	3167	- .3
1967-1968	3453	9.0
1968-1969	3928	13.8
1969-1970	4104	4.5
1970-1971	4208	2.5
1971-1972	4435	5.4
1972-1973	4605	3.8
1973-1974	4716	2.4
1974-1975	4671	- 1.0
PROJECTED		
1975-1976	5097	
1976-1977	5336	
1977-1978	5563	
1978-1979	5778	
1979-1980	5980	
1980-1981	6169	
1985-1986	6549	
1990-1991	6300	

* Source: "Costs per Pupil in Average Daily Membership (Columbus, Ohio: State Department of Education)

Figure 3. Actual and Projected Enrollments (ADM)
Strongsville, Ohio City Schools
1960-1990



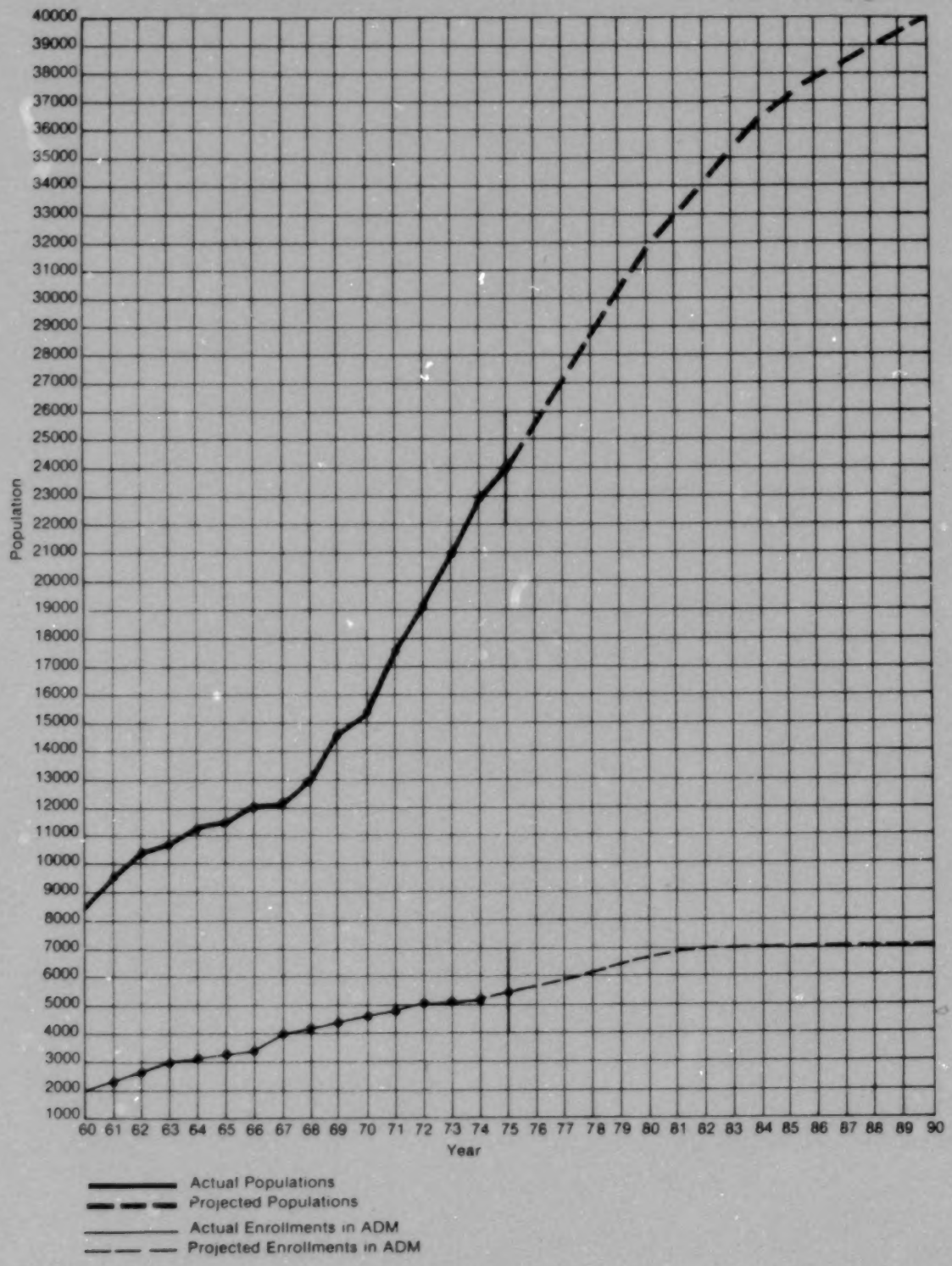
17 percent. By October, 1976, the enrollment is expected to grow to 5,336 for an increase of 732 persons or about 16 percent. Estimates for the future show an increasing enrollment, but at a slower rate of growth. This reduced growth rate reflects lowering birthrates and smaller family sizes.

It is estimated that the enrollment will reach a peak in the 1985-1986 school year, with a projected ADM of about 6,550 persons. After that year, enrollments are expected to decline slowly. By 1990, the ADM is estimated to be 6,300 persons; a reduction of about 250 students over the five-year period, 1986-1990. Figure 4 shows Strongsville's enrollments and population growth.

Educational Costs

For the 1973-1974 school year, Strongsville had a per-pupil tax valuation of $17,875.09. This was about $7,920 below the average per-pupil tax valuation of $25,794 for 26 Cuyahoga County city school districts and ranked Strongsville as twentieth in tax wealth among those cities. In that same school year, Strongsville spent $603.52 per pupil in ADM for instruction and $904.25 per pupil for total current expenses. These amounts were lower than any other city school district in the County. The average per pupil instructional cost for all city districts in the County was $773.53. Strongsville spent about $170, or about 22 percent, less than that amount. The average per pupil current expense was $1,168.36. Strongsville spent

Figure 4. Populations and Enrollments
Strongsville City 1960-1990



nearly $234, or about 20 percent, less than that amount.

These figures suggest that Strongsville is not a wealthy school district in comparison to its sister cities in the county. Its tax valuation is about $2500, or 12 percent lower than the average of $20,407 for all city districts in the state. Strongsville ranked 88th out of 182 city districts in the state for total current expenses, and 82nd in per-pupil instructional costs. This means that Strongsville spending is about average in comparison with the state.

Strongsville currently has seven elementary schools serving Grades K-6. These schools served an estimated 2,296 children during the 1974-1975 school year. During that same year, the city's two junior high schools served an estimated 1,160 children and the high school served an additonal 1,157 in Grades 10-12. Table 2 shows the enrollments and staffing for each of nine Strongsville schools. Drake school is excluded from this Table because it did not open until January, 1975. More is said about these schools in later sections of this Report.

Table 2. -- Summary of Enrollments and Staffing, Strongsville City School District, 1974-1975[a]

School[b]	Grades Served	Number of Teachers	Enrollments
Strongsville High School	10-12	54	1157
Albion Junior High School	7-9	24	539
Center Junior High School	7-9	33	621
Whitney School	K-6	13	353
Surrarrer School	K-6	13	399
Muraski School	K-6	14	377
Chapman School	K-6	15	381
Allen School	K-6	17	416
Zellers School	K-6	13	370
TOTALS		196	4613

[a]Source: Ohio Educational Directory, 1974-1975 (Columbus, Ohio: Division of Elementary and Secondary Education)

[b]Drake School not included.

Part 2

Some Concepts on Evaluating the Instructional Program

This part attempts to identify briefly a few of the ways in which instructional programs are evaluated. It is also intended to provide some background for how Strongsville's instructional program was evaluated.

Assessment of Child Behavior

One approach to instructional program evaluation is to assess child behavior following the completion of his K-12 schooling (Neagley and Evans, 1967; Walbesser and Carter, 1968; Kliebard, 1968). The success of this approach depends on the validity of three assumptions: (1) that the program does not change during the thirteen years the child is in school, (2) that program goals remain constant, and (3) that each child being assessed is a "product" of the complete K-12 experience.

In this era of rapid growth and change, the likelihood of a static K-12 program with a set of goals held constant for thirteen years is very small. Further, it is unrealistic to expect the modern school system not to change. To do so would put the system far behind its neighbors. This is related, in a way, to Alice's constant truth that we must run faster to stay in the same place. The goals of the modern mathematics education are quite different from those of more traditional programs. Teaching techniques, the use of media, and the diversity of instructional materials are examples of factors influencing such program changes. Indeed, Strongsville has made numerous revisions in its program. Each year Strongsville

has attempted to bring about improvements and changes. For these reasons, the validity of the first two assumptions cannot be accepted.

Strongsville's growth precludes acceptance of the third assumption. Many new children have entered the system. Undoubtedly, some have moved away. As a result, the student population has changed and relatively few graduating seniors are total products of Strongsville's instructional program. Other factors also create changes that prevent the use of this approach. Teacher turnover, administrative changes, restructured organization patterns, new facilities, and technological changes all contribute to a program with new experiences in new environments. It is nearly impossible to provide a valid assessment of Strongsville's program with this approach.

Standardized Test Results

A second approach to instructional program evaluation is to analyze the results of standardized tests. Teacher, guidance counselors, and administrators often use this technique to diagnose student progress and to examine individual and group differences. These data are important for planning, for assigning students to classes, for making decisions about student retention. Sarthory (1968) and Ahmann and Glock (1959) advise the users of standardized test results that careful interpretations of data by experienced and knowledgeable persons are essential when test results are used for decision making.

Cronbach (1963) has said, "I am becoming convinced that some techniques and habits of thought of the evaluation specialist are ill- suited to current curriculum studies... how must we depart from the familiar doctrines of the testing game. Tyler (1966) advocated the National Educational Assessment Program (NEAP) as at least one significant departure from Cronbach's "familiar doctrines." The NEAP used a specially designed system of standardized testing as a means for assessing public school instructional programs throughout America. The major advantage of the NEAP is that it seeks to evaluate learning according to regions. This same advantage is simultaneously a limitation that makes it inappropriate as a means for assessing an individual school district. Hardie and Pinkham's Project Yardstick (1969, 1970), and the correlational techniques described by Eichelberger (1974), use standardized test results as a means of assessing pupil achievement on the individual district level. Computer-based data are used by administrators to give direction for planning and for deciding school system instructional program revisions.

Promotion Policies and Regulations

A third approach to instructional program evaluation involves a studied review of promotional policies and regulations. In theory, pupils are expected to achieve a given level of proficiency at each age-grade level. Some district promotion policies may or may not facilitate learning. Wood (1952) said that promotions based on pupil age "throw into the

teacher's lap youngsters whose ability and previous achievement vary widely. Teachers need to be superhuman to deal with students whose educational backgrounds are as heterogeneous as is the case today." Burton and Brueckner (1955) explained that "arbitrary failure imposed on pupils by conditions beyond their control should be replaced by experiences that show young children how to meet and solve problems through their own efforts."

As long as promotion policies depend upon levels of age-grade achievement, they can be an effective assessment tool; however, when school programs are organized accoring to individual pupil progress, promotion policies are not helpful for study. Goodlad and Anderson (1963) showed that so many difficulties arise when nongraded programs are confronted with promotion policies that assessment becomes too confusing.

Student Retention Rates

A fourth approach is based on the theory that good instructional programs have better holding power; i.e., that there will be fewer dropouts. This point has been made by the National Committee for Children and Youth (1961). Hand (1948) has also emphasized that good school programs have not only fewer dropouts, but that districts with high retention ratios are given more support and are held in higher esteem by the community. A survey of dropout studies showed that schools with the highest dropout rates revealed deficiencies in career and

occupational education programs. To this extent, such studies have unquestionable value to schools. In theory, then, dropout rates could be greatly reduced by strengthening the deficient programs.

Data for most dropout studies are obtained from students, parents, educators, and lay people who are asked to state their beliefs. Regardless of their validity, these statements offer useful information about community attitudes and opinions. Such polls provide helpful guidelines for improving community understanding and clarifying misconceptions. Another benefit from such polls is that they can give helpful feedback for potential improvements.

Use of Resources

A fifth approach to instructional program evaluation is to analyze how the school staff, especially the teachers, makes use of available resources. The National Study of Secondary School Evaluation's Evaluative Criteria (1969) and Mort's Guide for Self Appraisal (1973) are examples of checklists that can give valuable information for determining factors affecting the quality of instructional program materials. Teacher attitude is another consideration concerning staff use of resources. Rosenthal and Rosnow (1969) have shown that the expectations of teachers are an influence on student performance. Kerlinger and Pedhazer (1968) found that teachers with progressive attitudes tended to have student-centered orientation. These findings about teacher attitudes tend to

diminish the reliability of checklists because most checklists are designed to assess task-centered factors: a charactistic associated with traditional, rather than innovative, schools.

Instructional Materials Review

A sixth way to assess instructional programs is to conduct a critical review of all instructional materials used by the school. These include tests, syllabi, course outlines, guidebooks, and other teaching and learning aids. Burton and Brueckner (1955) suggested that the review of these documents be conducted in terms of program objectives, content, materials, resources, evaluation procedures, and relatedness to sound educational philosophy and goals. If this process is done with care, and if the conclusions are valid, then much insight can be achieved about program quality. The major liability of this method is that it is based on the assumption that the instructional materials reviewed are descriptive of what the program actually provides. Too often the materials available reflect what is supposed to be done and not what the children are actually experiencing. Scriven (1965) reminds evaluators that they should identify a set of goals and standards against which these materials are to be compared. Stake (1966) adds that evaluation designs that assume that good instructional programs exist independent of pupil learning and teacher values are bound to fail. He stresses that the outcomes of such evaluations will undoubtedly be inconclusive and meaningless. Further,

the absolutist position may alienate teachers and contribute to antagonism and uncooperativeness.

Accountability

It is possible to review school district allocation budgets, especially net current per-pupil expenditures for instruction. Another way is to compare curriculum descriptions with minimum standards as prescribed by the state. Provus (1969) suggests a comparative analysis between program standards and performance. The foregoing examples illustrate the accountability model of evaluation. An advantage of this model, and its many forms, is that it provides objective data on which to base cost-benefit tests. A disadvantage is that it requires considerable preparation on the parts of teachers, administrators, and the evaluators themselves.

Part 3

Evaluation Design

The Survey Staff has reviewed and explored each of the above methods of assessing instructional program quality. It has developed an eclectic design that attempts to combine the positive features of several of the methods described.

In fall, 1974, each of the directors of ERCA curriculum departments was asked to arrange on-site visits at the Strongsville schools. The purpose of these visits was to observe and assess the Strongsville program relative to the directors' areas of expertise. Each director

organized a visitation schedule to gather the needed data. Multiple visits were usually made. Many days were spent interviewing staff and students, examining materials, equipment, and texts, observing student activities, reviewing schedules, touring facilities, and attending to other instruction-related areas. In some instances, standardized test results were also reviewed. Further information was gathered through the use of questionnaires, inventories, and individual conferences. Preliminary reaction reports were then drafted by each director and reviewed by the Director of Evaluation and Research.

All the data were gathered during winter and spring of the 1974 - 1975 school year. Each visiting team received instruction in using the Evaluation Guidelines developed at ERCA to insure consistency. A copy of these Guidelines is shown in the Appendix.

This Report includes no staff evaluations. Teacher evaluations were considered a responsibility of the Strongsville schools rather than of the ERCA.

SECTION II: THE STRONGSVILLE INSTRUCTIONAL PROGRAM

This section includes the recommendations and suggestions of the Survey Teams of the Educational Research Council of America for each of the subject areas of Strongsville's instructional program. These areas include foreign language, humanities (including the fine arts and literature), language arts and English, mathematics, occupational education (including business, career education, homemaking, and the industrial arts), physical education and health education, science, social science, and some aspects of pupil personnel and mental health.

Part 1
Philosophy

The Survey Staff examined Strongsville's statement of educational philosophy and its objectives. The need for such an examination has been cited by numerous authorities, including Alcorn and Linley (1959), Krug (1960), Burton and Brueckner (1955), and Wheeler (1967).

Authorities maintain that school districts need a statement of philosophy as a prerequisite to curriculum development or revision. Austin (1962) stated that:

> Fundamental to any integrated attack upon the problems in the development of the educational program is consideration of a basic philosophy to guide the program.

Smith (1961) was even more succinct:

> The educational program is built on the philosophy of the district, as interpreted by the educators of the district and accepted by the Board of Education. The philosophy is the ground work or foundation out of which come the objectives.... The philosophy of a district provides a basis for curriculum evaluation, revision, and development.

Strongsville's philosophy consists of a statement of purpose and an expression of beliefs. The statement of purpose attempts to describe, in a single sentence, the mission of the Strongsville schools. So many concepts are included in the statement that it is difficult to understand clearly.

The expression of educational beliefs reflects a normative philosophical approach; i.e., one that seeks to identify what children are expected to learn as a result of their elementary and secondary schooling. There is clear recognition of individual differences. There is also awareness that the school is not the child's only learning resource and that the child should be encouraged to pursue a lifetime of learning.

Strongsville's philosophy did not include a listing of goals or objectives. These appear to have been incorporated into the expression of beliefs.

Recommendations and Suggestions for the Statement of Philosophy

1. It is recommended that the statement of philosophy be rewritten to

include the following parts:

A) Mission. It is suggested that this statement be as broad and as comprehensive as possible. It should provide a clear explanation of Strongsville's continuing purpose as an educational system. It should be phrased in such a way that it can justify continuous community support.

B) Goals. It is suggested that a list of broad, general statements be developed that identify what the Strongsville school system proposes to do in order to accomplish its mission.

C) Role. It is suggested that a single broad statement be developed that describes how Strongsville's mission is unique to the community; i.e., what contribution it makes toward community development that is different from such other agencies as the Boy Scouts and the YMCA.

D) Function. It is suggested that a general statement be developed that explains how the school attempts to fulfill its role.

The following statement may serve as both an example and guide for revising Strongsville's philosophy:

> The distinctive purpose of the Strongsville City Schools is to provide instruction in organized human knowledge within the context of the cultural values and customs of our society and

with consideration for individual qualities of intelligence and personality. Such instruction shall be designed to enhance individual control and permit more effective choice, thereby affording greater personal and social freedom.

To achieve this purpose our school system organizes its curriculum, its staff, and its physical facilities to accomplish the following goals:

1. To develop skills in reading, writing, speaking, and listening
2. To develop pride in work and a feeling of self-worth
3. To develop good character and self-respect
4. To develop a desire for learning now and in the future
5. To learn to respect and get along with people with whom we work and live
6. To learn how to examine and use information
7. To gain a general education
8. To learn how to be a good citizen
9. To learn about and try to understand the changes that take place in the world
10. To understand and practice democratic ideas and ideals
11. To learn how to respect and get along with people who think, dress, and act differently
12. To understand and practice the skills of family living
13. To gain information needed to make job selections
14. To learn how to be a good manager of money, property, and resources

15. To practice and understand the ideas of health and safety

16. To develop skills to enter a specific field of work

17. To learn how to use leisure time

18. To appreciate culture and beauty in the world

The role of the Strongsville City schools is to serve as the primary community agency responsible for providing educational opportunities for all persons residing in the district.

The function of the Strongsville City schools is to maintain a system of planned learning program necessary for accomplishing its role.

Part 2
Art

Elementary

There was no syllabus, course of study, or scope and sequence chart available for art in the elementary schools for examination by the Survey Team. No goals or general objectives for art were identified other than those stated verbally by a few teachers in casual and noncommittal terms.

Children in Grades K-2 received art instruction from their own classroom teachers. Adequate materials and project storage space were available. Children in Drake Elementary School had the services of a full-time teacher who was also an art specialist; however, the children in the six other schools shared the services of only two art specialists, each of whom was responsible for teaching art to pupils in Grades 3-6 in three different buildings.

Recommendations and Suggestions for the Elementary Art Program

1. It is recommended that all children in Grades 1-6 learn art primarily from art specialists.*

2. It is recommended that at least one additional art teacher be hired. This may facilitate recommendation 1, above.

3. It is recommended that goals and objectives for art in the elementary school be formulated and that a sequential course of study by developed. An art program without objectives stated in terms of pupil behavior and without a planned content and sequence does little to help children produce aesthetically satisfying works of art and to understand and enjoy the art masterpieces of the past and present.

4. It is recommended that each child have learning opportunities in art for a minimum of 30 minutes daily (150 minutes weekly) in Grades 1-6.**

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*The children in Drake School have the advantage of learning art from a specialist in all grades, not just grades 3-6. The children in the rest of the district should have equal advantage.

**This would allow broader opportunities for children to learn an important aspect of the humanities.

Junior High Schools

There was a curriculum guide for the art program at the junior high schools. It listed ten "aims and goals," all of them stated in terms of teachers' behavior. The content of the art program was distributed among three levels, i.e., Level One (seventh grade): basic skills; Level Two (eighth grade): further development of basic skills; and Level Three (ninth grade): advanced skills and concepts in art.

Art was required in Grade 7 and was an elective in Grades 8 and 9. There was evidence that some students were losing interest in art as they progressed. At Center Junior High School, for example, there were four classes of seventh graders, three of eighth graders, and only one for ninth graders.

Learning activities in art history, appreciation, and analysis and interpretation of art masterpieces was evident.

Recommendations for the Junior High School Art Program

1. It is recommended that art be a required subject for all students in Grades 8 as well as in Grade 7. This would give continuity to the elementary art program and could reduce loss of interest for high school art.

2. It is recommended that top priority be given to writing behavioral objectives centered on the learner and developing a new course of study with the aid of experts in the field.

3. It is recommended that efforts be made toward development of a syllabus for the learning of art history and formal analysis of great works of art.

Senior High School

Although no formal course of study was used extensively, art learning activities showed evidence of careful planning and preparation.

The program offered opportunities for students to work with a wide variety of materials, media, and tools in two and three dimensions. Learning opportunities were varied and included painting with oil and water colors, modeling and carving, pen and ink drawing, ceramics and commercial art.

Students were encouraged to develop a concern for quality in art and were provided with many opportunities for talking about art and describing and evaluating their own artworks and art in their environment.

Recommendations for the High School Art Program

It is recommended that consideration be given to offering a humanities course in cooperation with the music, English, and social science departments.

System-Wide Recommendations for the K-12 Art Program

1. It is recommended that an art supervisor be hired for the district. His first priority will be to develop a sequential curriculum that will insure a vertical as well as a horizontal direction in art for K-12.

2. It is recommended that additional books, prints, and other art publications be made available through the individual school libraries.

Part 3
English

The English program in the junior and senior high schools was in a transition, with the senior high school program being more advanced in its development.

The junior high school program operated within a self-contained-classroom type of organization. Beginning in the 1975-1976 school year, the organization is expected to change to a quasi-elective program. Students will be able to work with as many as four different teachers as the year progresses. There will be some opportunity to select content. Students at both junior high schools used literature materials and participated in some of the activities that will be used in subsequent years. Teachers were becoming familiar with the new content, learning about the viability of the proposed program, and taking advantage of the literature books that were available for use.

The senior high school program was in the first year of a fully-elective, nongraded, nine-week course organization. Students elected courses from a catalog offering thirty-two choices. During the 1973-1974 school year, the program comprised a series of required minicourses, each four and one-half weeks long; consequently, both teachers and students were accustomed to shorter courses. Beginning in 1974-1975, the largely unrestricted elective feature was new to both staff and students.

Determining the effectiveness and appropriateness of the secondary English program was difficult because of its transitional character.

Students and staff were not sufficiently involved in the new program to enable the Survey Team to make concrete, objective observations about the character and quality of the learning activities; however, the history of standardized testing scores and the patterns of life expectations of graduating seniors served as guides to determining appropriateness. The central question was: Do the offerings at both levels provide for various student needs and aspriations as measured by Strongsville's testing programs, while doing justice to the academic disciplines involved in learning English?

An examination of test scores of students in secondary school was somewhat helpful in assessing their skills development. It was not as fruitful as it could have been because there were several changes during the six-year period of the testing. The only constant that survived the six-year span was the use of the Iowa Tests of Basic Skills in Grade 6 as a measure of reading and language achievement. The class of 1980, seventh graders in 1974-1975, was tested earlier in the year than were the previous five classes. The senior class of 1975 was tested in Grade 8 with the Ohio State Test and again in Grade 10 with the same test. The junior class of 1975 was tested in Grade 8 with the Iowa Tests of Basic Skills and Grades 10 and 11 with the Iowa Test of Educational Development (different test, different publisher, different norms). The sophomore class of 1975 was tested in Grade 8 with the Iowa Tests of Basic Skills, and

Grade 9 with the Iowa Test of Educational Development.

With this variety of tests and years, it was not possible to track a class through its development with any degree of confidence, nor to compare the achievement of classes with precision. Test results were based on different norming populations and the Ohio State Tests percentile ranks.

Comparison of the Grade 6 scores on the Iowa Test of Basic Skills was revealing. In 1968, the mean reading comprehension score of the sixth graders was 6.9. For each successive year there was a decrease in the mean reading comprehension score until 1973, when the pupils attained a mean of 6.4 years. These data are shown in Table 3.

Table 3. -- Reading and Language Comprehension Scores for Grade 6

Graduating class of:	'75	'76	'77	'78	'79	'80
Year Tested:	1968	1969	1970	1971	1972	1973[a]
	Reading					
$\overline{GLE}$[b]	6.9	6.8	6.7	6.5	6.9	6.4
%ile[c]	54	53	50	45	45	49
	Language					
$\overline{GLE}$	7.4	6.9	7.0	6.5	6.9	6.6
%ile	64	55	57	48	55	55

[a] In 1973, the test in both reading and language was administered three months earlier than in previous years.

[b] Mean Grade Level Equivalent.

[c] Percentile

This observed trend might be the result of chance factors associated with the tests and/or the testing procedures. The decline in scores

since 1971 was of such magnitude that analysis by t-tests revealed significant differences at the .01 level of confidence. This decline has continued since 1971 with a level of significance far beyond .01. There can be no doubt that the scores showing this decline are not spurious and are indeed a matter for serious concern. By contrast, the language test scores, shown in table 4, were somewhat higher each year than the reading comprehension scores. The language scores followed the more frequently encountered pattern of being higher oneyear, lower the next, higher the next, and alternating in this way. The curve for the language scores, when smoothed, does show a downtrend; but the overall picture presented suggests that attention to reading comprehension should receive highest priority.

Table 4.--Reading and Language Percentile Scores for Strongsville

Grade	Class of 1975		Class of 1976		Class of 1977		Class of 1978	
	Reading	Language	Reading	Language	Reading	Language	Reading	Language
6[a]	54	64	53	55	50	57	45	48
8[a]	53[b]	50[b,c]	55	51	50	50	47	51
9[d]	--	--	--	--	--	--	52	51
10	40[b]	45[b]	52[d]	42[d]	--	--	--	--
11[d]	--	--	57	46	--	--	--	--

a Iowa test of Basic Skills
b Ohio State Test
c Albion only
d Iowa test of Educational Development

Because of the history of the testing program in Strongsville, it is difficult to be definitive about test scores when students enter secondary school. There is evidence that most classes maintained grade level or improved slightly in reading comprehension through the secondary grades. In general there was a tendency towards lowered language scores through the secondary grades.

In addition, the Grade 6 tests revealed other evidence of diminishing reading skills. A guide used to assess reading competence is to add or subtract two years from the grade level score. Students scoring at least two years above grade level are considered to be very capable readers. Those scoring two years below grade level are considered to be candidates for remediation. Table 5 shows a steady decrease in the percentage of students scoring two years or more above grade level between 1968 and 1973 and a steady increase in the percentage of those scoring two years or more below grade level.

Table 5.--Numbers and Percentages of Grade 6 Students Above and Below Grade Level in Reading

Year	Total Students	Grade level plus 2 years.	Per cent	Grade level minus 2 yrs.	Per cent	Below 5.	Per cent
1968	218	26	12	15	7	22	10
1969	312	27	9	26	8	31	10
1970	308	24	8	27	9	41	13
1971	311	24	8	35	11	51	16
1972	364	23	6	39	11	55	15
1973	343	32	9	35	10	56	16*

*Tested three months earlier

In summary, for the last six years, there has been a steady decline in reading skill as measured by the Iowa Tests of Basic Skills of children entering junior high school. This decline has been system-wide and noticeable in students at all ability levels.

As part of the plan for instructional program change to be implemented in the 1975-1976 school year, both junior high schools instituted reading laboratories. This may reflect a growing awareness of the progressively deteriorating reading ability of incoming students. One option for course selection in the junior high school will be corrective reading. Training has begun to prepare the Albion staff to use their reading laboratory.

The library facilities at both junior high schools were superior. Each was staffed by a full-time, trained librarian. The physical arrangements of both libraries allowed for whole-class instruction, while providing enough space for individual research and browsing.

The library spaces were attractive and inviting. The circulating collection at each library exceeded the ten-books-to-one-student ratio, which is the old standard promoted by the American Library Association. The new optimum ratio of 20:1 is unrealistic for most school libraries because of the usual limitations of space. Each librarian reported a circulation of approximately 10,000 volumes per year. Considering the size of the population served, this circulation indicated a high interest in reading, as well as full utilization of the library services. The per pupil circulation was between 17 and 19 volumes a year, representing an average use of at least two books per month by each student, and a twice-a-year circulation for each volume.

The High School library services did not compare favorably with those

of the junior high schools. This might be attributed in part to the temporary nature of the library. Services may improve when the library is moved to its permanent facility. The new facility is planned to be more attractive and appealing than the temporary one. The High School circulating collection included approximateiy 11,000 volumes. Through February, 1975, the total circulation was about 10,000 volumes. This figure projected a circulation of about 14,000 for the total school year and suggests a lower usage of the collection (1.3 circulations per volume) and much less reading of books by students (about one per month).

Studies of reading patterns show that people tend to read more books during the junior high school age range than at any comparable period in their lives. The circulation figures at the High School indicate a need for increased attention to the reading of books. Possibly, the collateral reading assignments in English and in other department courses might augument library circulation.

To reiterate an earlier statement, the more inviting and attractive housing for the collection to be provided by the new facilities may help. This change notwithstanding, the collection itself should be inceased at least to the old ALA standard.

The entire Secondary Language Arts/English program comprised two levels: junior and senior high school. The junior high school program was sub-divided into grade levels seven, eight, and nine. The High School

program was a three-year, ungraded program. Beginning at the primary level, the program comprised five different strands: reading, writing, language, speaking and listening, and mass media. These strands were maintained through the junior high school with the media strand, per se, operating only in Grade 9.

At the high school level, these strands were reduced to three, with speaking and listening, together with some of the language content, being subsumed with mass media study in a "communication" strand. A "composition" strand subsumes both writing and mechanics (some of language).

The content outlines of the program offerings was very good. It described direct continuity in the program from level to level. The format was clear and easily understood. The content as described should enable most students to attain the prescribed goals. The only weakness in the content was that there was no provision for the study of grammar at the high school level. Research on grammar instruction indicates that the high school is the appropriate level for this highly abstract discipline. College-bound students need a working knowledge of both the structure of the language and of the newer approaches to grammatical analysis.

The secondary English courses were described in detail in a series of teacher guides. The junior high school guides reflected a relatively weak

program. The senior high school guides, judged on a course-by-course basis, were unusually good in content and format. Because of the elective character of the program, together with some other questionable features, the guides do not reflect the best possible experience in English for all students.

During the 1973-1974 school year, the Secondary English Department Coordinator of the Educational Research Council helped to prepare the English and Language Arts program outline. When that document was completed, it was agreed that ERCA would provide a two-week workshop to help teachers prepare individual course guides at the secondary level. As it developed, the workshop lasted for two days only and, therefore, minimum training and consultation was received. Many of the high school guides were completed independently and were reviewed by ERCA staff. They were revised early in the 1974-1975 school year.

Some junior high school guides were completed by October, 1974, and were reviewed by ERCA. It was reported to the Strongsville staff at that time that both the guides and the program needed considerable revision. A second set of guides written by the Albion School staff was reviewed in February, 1975. These were somewhat improved over the first set. however, some revision of the second set was necessary, and a workshop on expressing objectives was held at Albion School in early March

As noted previously, the overall program outline for the junior high school

was very strong. Unfortunately, however, not all students have experienced the program because of its elective nature, especially in connection with the reading strand.

In the proposed curriculum, all students are expected to study for one quarter in a writing class and for one quarter in the language class. These quarters are not elective; however, students may choose teachers and classrooms. The final quarter of the year will be devoted to a speech elective and the content of each speech course provides for all of the experiences indicated in the program outline.

The reading strand is different. In Grade 7, students may choose to study either mythology or biography. Another option will be remedial reading. It was not clear whether the reading laboratory work will be in addition to, or instead of, other English work. In Grade 8, students may choose either poetry or drama as a literature elective. In Grade 9, the choices are either short story or novel. The corrective reading laboratory will also be an option in Grades 8 and 9. Work in media will be an elective in Grade 9 parallel to speech elective.

In consideration of the tendency for the decline in language and reading test scores in the secondary grades, the requirement of language study in each year for all students and the availability of corrective reading laboratory are commendable. The treatment of literature remains extremely weak, and the possibility of a general interference in reading development,

as a result of the elective structure, is apparent.

If the proposed plans are followed, students could complete three years of junior high school English without ever studying a novel, play, or biography. It is imperative to restructure the reading strand to include learning activities in each of these forms.

All students will have opportunity to do some reading in the writing and language classes. In the speech quarter, ancillary reading is inferred and not categorically described in the guides. This means that it is possible that no one will be required to do any reading for a quarter of each of three years.

These guides have other weaknesses. The statements of goals and objectives do not specify what the students are expected to learn from the program. The evaluation procedures were vague and confusing. An educational evaluation should help determine how many students have attained which objectives, and to determine their degree of achievement as indicated by those objectives.

Since the objectives were poor, the evaluations will also suffer. Statements of evaluation should contain criteria that will help to determine the effectiveness of the learning activities and the materials used. Only in a secondary way should they refer to the adequacy of student performance. The statements of evaluation in the junior high school guides were limited to the assignment of letter grades at the end of marking period. If students

are not clear about what they are expected to learn, then there is no way to evaluate what they have learned.

Research has shown that teen-agers spend more time with television, radio, and movies than they do in school. Further, their lack of sophistication makes them natural targets for the worst in advertising and other kinds of propaganda. These findings suggest that junior high school curriculum content should provide learning experiences that include a critical analysis of mass media for all students. According to the program guide only some students may benefit if they elect the media course in preference to other offerings in speech.

In summary, the observed junior high school English program is stronger than the proposed one. In the observed program, all students experienced reading all forms of literature, and reading was spaced evenly throughout each year. The strongest feature of the proposed program will be the availability of corrective reading.

Ideally, teacher guides should meet the following criteria: (1) sufficient brevity that staff members can read it thoroughly during part of an evening, (2) clarity of descriptions of the learning activities to be provided during the time period covered by the guide, (3) detailed listing of the materials to be used, their sequence, where they may be obtained, how and when to obtain them, and in what instructional setting they are best used - - that is, exactly what the students should be doing in whole-

class instruction, small-group instruction, and in individual work, 4) clear, objective statements describing what the students are expected to learn, 5) performance criteria that identify the relative degree of attainment expected for the approximate percentages of students, and 6) evaluation procedures describing how this attainment is to be measured.

The junior high school guides did not meet all these criteria, although they were compact enough to be read in a suitable time period. By contrast, the senior high school guides met all of these criteria and could be used as models. Further, the senior high school guides were color-coded for easier use and included the names of the authors of the guides, who may be used as resource persons. The only weakness was that the guides did not describe criterion performance for each of the objectives cited. Despite the superiority of the guides as documents, the high school English program leaves some unanswered questions.

The High School Guidance Department indicated that, historically, between 30 and 50 percent of the graduates have continued their formal education. In recent years the percentage of students going on to college has averaged 30 percent or less of the graduating class. More than two-thirds of the students end their formal education with high school. For this latter group, the English Department represents the final formal opportunity for language development. To some extent, the present program is adequate, in some ways it is not.

The published English program provides for five levels of student competence and designates certain classes as being appropriate for given levels. In actual practice, however, there are only two ability levels: lower (Phases 1 and 2) and upper (Phase 3,4 and 5). Only eight out of twenty-six courses were designed for Phase 1 students. Seven of these eight were open to Phase 2 students, who were also advised to enter three other courses not advised for the Phase 1 group. Since twelve English courses are required for graduation, not enough courses are available to permit students who continue for three years in Phase 1 or 2 to be graduated. Three courses were indicated as appropriate for students in Phases 4 or 5. The rest of the courses were indicated as appropriate for Phases 3,4, and 5 except for the Crime and Detection course for Phases 2,3, and 4. This balance, while making limited provisions for weaker students, does not provide sufficiently for superior students. This inadequacy is unfair to the one-third of the graduates who go on to higher education. Presumably, one-half of these could benefit from the challange and enriched content of Advanced Placement courses; but such work has important prerequisites. Successful Advanced Placement students may be permitted to omit basic college courses while getting credit for them. This advantage could provide a shorter and/or more profitable and less costly college experience.

The Modern Poetry course was designed for Phase 4 and 5 students. This course placed heavy emphasis on contemporary rock music. Two books

were required and both books contained relatively easy material. Another book studied was more important from the point of view of literary criticism. It represented only a fraction of the work of a few major modern poets and excluded all the women who have made important contributions. It also omitted poetic giants such as Dylan Thomas, Wallace Stevens, Matthew Arnold, Vachel Lindsay, and D.H. Lawrence. Oddly, Robert Browning was included as a modern poet. There would be nothing objectionable about how the course was balanced or the poets studied. If this were a course designed for all students: however, it was inadequate in terms of the high-ability students for whom it was intended or as a reflection of modern poetry.

The American Literature Survey and English Literature Survey courses have each been condensed to nine weeks. Nationally, a principal reason for the shift from traditional to elective English programs was the recognition of the inadequacy of such survey courses. Most high school students lack the background to assimilate the breadth of English or American literature in a year's time. The necessarily impressionistic treatment given to these surveys in traditional programs (e.g., two days of Beowulf, four days of Chaucer, two weeks of Shakespeare), resulted in a view of literature that was superficial, trivial, and resulted more often than not in turning students away from history's greatest literary works rather than introducing them to important experiences. If one year is inadequate, how valuable can nine

weeks be? Only one novel was read by the class in the American Literature Survey. Although fashionable during the days of open racial violence and tension, it is hardly representative today.

A third survey-type course was on Eastern and Oriental literature. This course attempted to cover so much that in the end it covered nothing. Better to offer a course in Biblical literature, another in the literature of the Middle East, another in the literature of China and Japan, and another in the literature of India rather than the present course. This third course tried to treat all of this plus the literature of Burma and the philosophical and cultural backgrounds underlying all of these, together with such diverse content as eating with chopsticks, practicing the tea ceremony, and reading works by Asian/American writers.

Four pairs of courses were developed in this way: a certain type of content was offered for capable students, and parallel content was offered for less capable students--Critical Reading, Gothic Literature, Science Fiction, and Short Story. This sort of organization is useful, especially if the upper level course contains more reading and more difficult pieces. Analysis of the guides revealed more reading in the upper level course, but no real difference in difficulty for the lower readers. The materials and the objectives and concepts were both the same. The weaker students were doing less reading, and many materials were just as difficult as for their more capable peers.

A comparison of the guides for two other courses presented some interesting contrasts. Twentieth Century Novella and Street Literature were both intended for Phases 3, 4, and 5. The Novella course required six books, while Street Literature required only three. The six books presented a range of difficulty from easy to relatively difficult. The three books used in Street Literature were of equal difficulty. The concepts relating to form in the Novella course defined that form as well as it can be defined. The comparable concepts in the Street Literature course might be used to define almost any literature available. The treatment of the works suggested in the guide for Street Literature indicated that the course centered on problems of alienation and dissidence. Several of the works used as corollary materials were of better literary quality and presented a more cohesive approach to themes involving racial conflict. The course needs a revised focus.

A number of courses are unusually strong. The easy-reading Science Fiction course had an evaluation/motivation structure that might well be imitated by more literature courses geared for weak achievers. The program was carefully planned in terms of contracts so that each student would be clear about what he is supposed to do and can gauge his own achievement in a concrete way.

The Remedial Reading guide can also be a useful resource. The

procedures and objectives were clear and reasonable, and the goals seemed attainable. The course should be open, with credit, to students who need it for more than a single quarter. Students who are very weak in reading need remedial reading much more than they need to study literature, which they could not do anyway.

Man's Dual Nature is a course that is superior in both concept and execution. The very capable student, for whom the course was designed, will find the works used challenging and the general approach representative of the strongest in contemporary literary criticism. The course treated the concepts involved in myth criticism reasonably well for nine weeks' work. The thrust of the course goes far beyond this to get at one of the central thematic concerns of literature.

Critical Reading deals with an analysis of logic and persuasion that the capable reader often encounters in his general reading as well as in advertising and propaganda. This is a much needed course that is technically well done.

Three of the four semester-long courses (the guide for the Debate course was unavailable) provided more thoughtful, more careful, and more substantial treatment of the content than their nine-week counterparts. These courses were longer, were aimed at more highly motivated students, and required prerequisites in the same areas. The students in these four courses were expected to do work superior to that in other comparable courses. It is

unfortunate that the students who elected these courses did not receive English credits for them. Perhaps the decision to withhold credits is a vestige from traditional English programs when such courses could not be substituted for survey courses. If this is the case, this regulation should be reexamined. It is hard to imagine a rationale that would justify the present practice.

In general, the language strand is the weakest part of the English program. Only the semantics component is treated adequately. Some courses concentrated on the meaning aspect of language study. Others devoted some time to the study of sensitivity to language, poetics, levels, and connotation. As noted previously, however, grammatical structure received no attention. The history of language might be quickly treated in the English literature survey, but nowhere else. Dialect was touched in the Street Literature course. Students should know the general patterns of language change, levels of usage, and the use of social and geographic dialects so that false and destructive sterotypes about how our language changes and is used will not lead to intolerance or bigotry. In the present organization, many students will graduate from Strongsville High School ignorant of these basic goals. Since most of them will not go on to college, there is little hope of their getting the appropriate learning.

On the whole, the written instructional program in English at the High School is outstanding. It is unfortunate, however, that the students were

receiving instruction from an overloaded staff. The National Council of Teachers of English recommends a standard load of two preparations per teacher for any instructional period (quarter, semester, year). The NCTE notes that only on unusual occasions are three preparations acceptable, and this with compensatory released time. No Strongsville English teacher had fewer than three preparations.

The program contained many fine courses. However, because the program is entirely elective, there is no way to ensure that every student will get the best that the program has to offer. Some students can go through high school without having to read a play or a poem. Taken together with the elective feature of the proposed junior high school literature strand, some students may have six years of secondary English without experience in poetry or drama. Clearly there is a need to articulate better these programs and to establish some minimum requirements.

Late in 1973, when the high school program was being planned, there was a discussion of basic coursework for tenth graders that would ensure experience for all students in the fundamentals of literature and language. Unfortunately, these courses were not forthcoming. They would stand as worthy substitutions for the survey courses.

Summary

1. There has been a progressive deterioration of reading ability of students entering the seventh grade.

2. The proposed program for 1975-1976 provides for a corrective reading laboratory in the junior high.

3. Junior high school students are getting a sound library experience.

4. The progress in language learning through the secondary grades has been spotty.

5. The literature and reading component of the present junior high school program is preferable to the proposed change.

6. The guides for the proposed junior high school program need more revision; the proposed program needs more careful planning.

7. There is no careful articulation between junior and senior high school programs.

8. The senior high school library services need improvement. About 1,000 books should be added to the circulating collection, and a school-wide effort should be made to increase the use of the library.

9. The senior high school guides are excellent.

10. Both administrative and teaching staffs need to explore ways to reduce teacher loads in terms of numbers of preparations.

11. There are some inconsistencies in the senior high school curriculum:

    a. The number of phases indicated does not match the course designs.
    b. In terms of ability levels, the offerings are unbalanced. There should be a few more courses for low achievers and several more offerings for the academically talented.
    c. Some language courses should be added.
    d. Some provision must be made so that students will not miss basic content in English studies.
    e. A few courses need to be reexamined in terms of their quality/superficiality/internal consistency.

Recommendations and Suggestions for the Secondary English Program

1. It is recommended that a consistent testing program be planned and implemented. Tests normed on the same or comparable populations

should be used, and scoring procedures should enable comparisons. Both the California and the Stanford series provide instruments for grades 1-12. The time of year and the grades in which tests are used should be stabilized. Since standardized tests are used best to measure the achievement of groups, the most useful pattern is to test at the end of sixth, ninth, and twelvth grades so that program effectiveness can be evaluated continuously.

Of most immediate concern are the Grade 6 tests in reading comprehension. These results, year-to-year, should be monitored very carefully, and the implications of the scores should be used in reexamining the reading curriculum in the elementary school and the corrective reading program in the junior high school.

2. It is recommended that a specific corrective program be instituted in the junior high school. Students should be scheduled into this program instead of the normal English program. It is suggested that teachers of classes where much reading is expected, as in the social studies, should receive in-service training in the teaching of weak achievers. Since the decline in reading ability is system-wide, the English program in the junior high school should be redesigned to emphasize the teaching of reading skills as contrasted with the development of literary concepts.

3. It is recommended that the junior high school teachers be given adequate support during all stages of the revision of their course guides. ERCA can provide that help. Most expecially, the reading and literature strands need attention. The content of the courses in these strands could be restructured so that regardless of which course a student elects, he will have experience with all forms of literature. For example, the seventh-grade biography course might include the play, The Diary of Anne Frank, which is biographical, or some of the poems from the Spoon River Anthology by Edgar Lee Masters, which are both easy and biographical, as well as longer and shorter biographies. This kind of treatment of all the courses would not violate their central appeal and would ensure a more well-balanced experience. Some reading activities should be included in the speech courses.

4. It is recommended that some basic courses that would ensure at least some experiences with the fundamentals of literature and language be added to the high school program as requirements. In lieu of this, some requirements involving types of courses should be incorporated into the elective design.

5. It is recommended that a sophisticated grammar course be added to the program. Such a course should include the history and dialectal changes of English.

6. It is recommended that the system of phasing be reconstructed. Apparently, there are only two groups of students: weak achievers and normal achievers. The latter group includes academically talented students.

7. It is recommended that special provision be made for Advanced Placement courses. Remedial reading for selected students should be available for credit for an indeterminate number of quarters. The presently offered semester courses should permit credits toward English requirements.

8. It is recommended that the survey courses be dropped. If the content is deemed necessary, it should be restructured into courses comparable to Realism/Naturalism/Determinism as currently offered. For example, early nineteenth century American literature might be treated in a course on Romanticism.

9. If above recommendations 4-8 cannot be implemented for philosophical or other reasons, consideration should be given to the development of a statement of rationale supporting the choices to be offered, such as number of phases, omission of language courses, and avoidance of advanced placement. Otherwise, the inconsistencies noted make many program elements seem arbitrary and capricious.

10. It is suggested that, in an effort to reduce teacher load, the offerings be restructured. All of the courses need not be offered every year. Many courses might be offered in alternate years. Some courses could be offered every third year. Of course, there will be some highly popular or much needed courses that may be offered on a yearly basis. At most, any student could elect eight courses in a given year. When there are thirty-two choices from which to elect eight or fewer courses, the other offerings represent considerable inefficiency. The idea is to permit wide-range selection over a three-year period, not necessarily each quarter. Such a restructuring could have many advantages. First, with fewer courses offered, the number of teacher preparations would be reduced. Further, there would be several sections of a given course, whereas now there is one section of many courses. Second, many more students could get their first choices in electives. All students should get one of

their three choices. Third, some valuable courses that are now marginal in class size could increase in enrollment because they would not be offered each year, and the number of competing courses would be reduced.

Another alternative would be to alternate quarters in which courses are offered in a given year. This could intesify the advantages mentioned above. The mechanics of rescheduling the offerings would be relatively light compared with the potential advantages.

Part 4
Foreign Languages

Three staff members of ERCA Project French constituted the Survey Team for foreign languages. The people interviewed included all eight foreign language teachers, students, administrators and counselors. The three secondary schools were visited two or three times. Classes at all levels were observed. Two Survey Team members alternated from one visit to the next so that both could see the same classes with the same teachers, could exchange ideas and impressions and work out as objective an evaluation as possible.

The instructional materials were also examined. Teachers were asked their opinions about the materials. A survey of facilities and equipment was made and a review of class schedules conducted. All teachers were given a questionnaire of the type developed and used by the Math Department (see Appendix A). Five out of eight , or 62 percent, of the questionnaires were returned to the Survey Team. The Survey Team recognized the relatively little time they spent in the district. Had more time been available, a greater and more

balanced variety of learning might have been observed. One teacher had an accident and was away from school on two out of three visitations.

Three modern languages -- French, German, and Spanish were offered. The program spanned Grades 7-9 in the Albion and Center Junior High Schools, and Grades 10-12 at the high school.

Students began foreign language study in either Grade 7 or 9. There was no Level I, for beginners, at the high school.

All classes met daily. Grades 7 and 8 averaged 27 minutes per session, and Grades 9 through 12 averaged 55 minutes.

The Survey Team limited the evaluations in German and Spanish to learning activities and instructional materials.

Published goals and objectives for the foreign language program were not available. The Survey Team examined a 1970 "Course of Study" for the junior high school. Three of the five authors were teachers still with the system. Neither teachers nor administrators seemed to recognize the present validity of that publication. A special committee, designed to help develop a new course of foreign language study was organized and planned to meet on seven alternate Thursdays, beginning March 6, 1975. A member of the committee indicated that he would suggest that a staff member of ERCA be called upon to serve as consultant. The teachers were asked to describe aims and objectives from their own points of view. With some variations on perspective or emphasis, there was consensus on the necessity of developing four skills: understanding, speaking, writing, and reading, plus an awareness of the foreign culture. The principals, guidance

counselors, students, and the assistant superintendent offered a variety of rationales without consensus including college entrance requirements, careers, humanistic education, and intrinsic value.

In the absence of clear-cut aims and objectives, or guidelines, it was not possible to evaluate what actual learning occurred in the classroom in comparison to established criteria or references specific to Strongsville. The opportunity for students to take one or two foreign languages for up to six years is potentially excellent. So is the choice between three languages.

Certain learning activities and strategies appeared to emphasize knowledge, memory, and factual information. The Survey Team did not observe opportunities for children to develop creativity or communicative competence. Much of this situation may have been directly derived from the materials in use.

In general, there appeared to be too much testing, reading, and writing. There were not enough speaking or oral comprehension activities.

Some teachers reported satisfaction with the materials they used. Others did not. The Survey Team believes the materials were inadequate in many respects, particularly in the high school.

In one school, teachers reported they had almost all the equipment they needed, and that the facilities were adequate; in another school, the opposite sentiments were expressed.

There was a lack of coordination and sequence within and between foreign language programs. In some cases the grouping of students was aberrant. For example, students of two levels were grouped in the same

Spanish class in the high school. Most of the student evaluations were based on recall; e.g., retrieval of vocabulary, and explicit morphological grammar. Students were not observed to be evaluated on functional phonology and communicative competence.

The materials used in the junior high schools were:

French:	Commençons	McGraw-Hill
	Continuons	McGraw-Hill
	Ça va, Bonjour	Scholastic Magazines
German:	German Today One	Houghton-Mifflin
	Review Test in German First Year	H.F. Reinhart, AMSCO
	Five Readers of National Textbook Co.	
	Das Rad	Scholastic Magazines
Spanish:	Començemos	McGraw-Hill
	Segamos	McGraw-Hill
	Review Test in Spanish First Year	AMSCO
	Scholastic Magazines	

Senior High School:

French:	Learning French the Modern Way	McGraw-Hill
	Reflets du Monde Français	McGraw-Hill
	LePetit Prince, A.de Saint-Exupéry	
	"Andromaque," Racine	

German:	German Today Two	Houghton-Mifflin
	Deutsch: Lesen und Denken	Holt-Rhinehart-Winston
	Deutsch: Denken, Wissen und Kennen	Holt-Rhinehart-Winston
Spanish:	Segamos	McGraw-Hill
	Review Test in Spanish First Year	AMSCO
	A nineteenth century novel from Argentina	

Recommendations and Suggestions for the Foreign Language Program

1. It is recommended that a single foreign language department, with a chairman or coordinator, serve all three schools. It is further recommended that regular staff meetings be held to ensure and refine coordination and that a detailed and published course of study, complete with specific guidelines and objectives be established for the district.

2. It is recommended that the revision and/or replacement of instructional materials be examined concurrently with Recommendation 1. Materials adopted should reflect the published guidelines and objectives.

3. It is recommended that the materials adopted be complete with tapes and visuals. Supplementary audiovisuals necessary equipment, also should be provided.

4. It is recommended that foreign language classroom facilities be designated. Special rooms were avialable in the junior high school; however, at Albion School, the acoustics were poor.

5. It is recommended that every effort be made to organize homogeneous classroom groups. With few exceptions, the size of groups was considered good. The heterogeneity of certain groups caused a regrettable waste of time, energy,and effectiveness. The presence of students from a nearby religious school in classes at Center Junior High School also seemed to create problems.

6. It is recommended that the Grade 9 beginners' course be discontinued, and that a Level I course in all three languages be offered in Grade 10.

7. It is recommended that students be given considerably more opportunity to participate in adequately planned and prepared foreign language learning activities.

Part 5
Mathematics

Each of the five Survey Team members visited at least three schools. The data were gathered mainly through interviews with ninety-eight teachers and seventeen administrators. A copy of the interview schedule is shown in Appendix A . Additional data were collected through classroom observations and surveys of the school libraries, facilities, and equipment. All schools, except two, were visited by two members of the Survey Team. The original plan was that each member of the Survey Team would visit each school twice; however, since each visit took about one-half day, there was not enough time.

The Survey Team reported ample evidence of positive principal-staff and intrastaff relations. The staff is particularly commended for its prepared outline of a Course of Study in mathematics for Grades K-12.

Elementary

The children had the benefits of special classes in mathematics. Adequate supplementary materials were available to them, and they were grouped in a variety of beneficial arrangements. Most of the libraries were stocked adequately with mathematics books, mostly of the recreational type.

The children had adequate time for learning activities in mathematics, from thirty to fifty minutes daily. Class sizes were appropriate for effective learning. The amount and availability of audiovisual equipment

was satisfactory, including overhead and film and filmsyrip projectors and cassettes.

Many teachers reported dissatisfaction with the mathematics being used. They noted a lack of sufficient exercises for the development of computational skills. Some teachers reported that the reading level was too high and that the activities suggested and the explanations for them as outlined in the teachers' guide were not appropriate to grade level.

It was noted that the program objectives and learning emphasis varied considerably among elementary schools and within individual buildings. This situation created a lack of K-6 coordination among schools. Another consequence was that children completing the sixth grade had great variance in mathematics skills and knowledges.

The published program objectives lacked specificity and were not written in behavioral terms. For example, on page 5, under "Numeration," in the booklet Mathematics, Course of Study, Grades K-12, it states "Understand properties: K-12." This objective is too general and not written in measurable terms.

The age spread in the summer school classes, according to those interviewed, was too great for effective learning. This large age spread limited enrichment learning in those classes.

The supply of teaching aids, such as models, manipulative materials, measurement instruments (especially metric), calculators, and supplementary texts was inadequate. This was also true of some of the libraries, where

recreational mathematics books were in short supply. Finally, the availability of adequate professional resources were severly limited.

Recommendations and Suggestions for the Elementary Mathematics Program

1. It is recommended that a new mathematics text series be adopted. Consideration may be given to the adoption of a multitext approach.

2. It is recommended that some person be appointed to serve as mathematics coordinator, at least for the K-6 grades. This person should be given the necessary time, resources, and authority to bring about change and to provide or arrange for in-service training programs in collaboration with the curriculum coordinator for the system.

3. It is recommended that the present Course of Study be revised and expanded to provide more direction in mathematics learning activities. Objectives should be expressed in behavioral or measurable terms. They should be grade specific, and developed by all those staff members who accept responsibility for providing mathematical learning activities for children.

4. It is recommended that the summer school Mathematics program be reorganized into three sections:
   1) a primary section for remediation
   2) an intermediate section for remediation
   3) an enrichment section

Junior High

Information gathered from the two junior high schools revealed that a wide variety of mathematics courses were available to students and that the available supplementary materials were used regularly. A Division Chairman had been designated to help coordinate the mathematics and science programs. These observations were seen as significant strengths by the Survey Team. Areas of concern were cited as follows:

1. Class sizes were considered too large for students in the below-average groups.

2. The lack of a K-12 mathematics coordinator resulted in effects similar to those of the elementary schools.

3. The students did not have access to a cross-reference to go with the supplementary materials cited in their textbooks.

4. Class periods were a bit too long. The Survey Team believes that periods as long as fifty-six minutes tax student attention span.

5. There were not enough classroom calculators or audio-visual equipment.

6. Summer school opportunities were reported by teachers as being too restricted. Available learning opportunities were limited to remedial mathematics.

7. The procedure for assigning students into the Grade 7 track was inadequate. The tendency was to place students into programs that were above their ability levels.

8. Mathematics Program evaluation procedures were inadequate. Scope and sequence and articulation between the Grades 8 and 9 algebra courses could not be compared satisfactorily.

9. The supply of books and materials in the students and teacher libraries was inadequate.

10. The methods used for assigning students to the Grade 8 algebra course were unsatisfactory. The course was too difficult for many of the students.

Recommendations and Suggestions for the Junior High School Mathematics Program

1. It is recommended that provision be made for reducing class sizes for the slower learning groups. This could be done by rescheduling to equalize class size or by assigning more teachers for these students.

2. It is recommended that a full-time person be designated to provide stronger articulation between the elementary, junior high, and high

school levels. This person could also organize appropriate in-service programs for the mathematics teachers, and in collaboration with the curriculum coordinator, have the authority to make needed changes.

3. It is recommended that all mathematics textbooks be catalogued and cross-referenced with all of the available supplementary materials.

4. It is suggested that the classroom periods be reduced to forty-five minutes from fifty-six minutes. An alternative would be to allow students to use the final ten minutes of class to begin their homework or for individual study.

5. It is recommended that additional audiovisual equipment and calculators be made available for student use. Such availability should be in the resource centers and in the classrooms. It is suggested that one inexpensive calculator for each two or three students be provided for classroom use. It is further suggested that two or three desk calculators with print-out capability be made available in the resource centers.

6. It is recommended that the summer school program be revised to include enrichment as well as remedial learning activities. It is further recommended that enough staff be provided to maintain lower than usual class sizes.

7. It is recommended that a committee be appointed to identify a diagnostic test to be used as a criterion for placing students into the Grade 8 algebra course. This committee should be comprised of counselors and mathematics teachers. It is further recommended that this committee select a standarized test to be administered at the end of the year to algebra students in Grades 8 and 9. The data from these test results should be used to revise the criteria used for placing students into the Grade 8 algebra course.

8. It is recommended that an inventory of the mathematics books and materials in the resource centers be made and that additions and revisions be provided in accordance with the recommendations of the NCTM.

Senior High

The Survey Team was impressed with the variety and breadth of mathematics courses available to students at the High School. Students were

properly placed and the appropriate prerequisites were available. The school is commended for its informal algebra and geometry course offerings.

The concerns of the Survey Team were as follows:

1. Students did not have any opportunity to learn mathematics from the person who is chairman of that division.

2. No more than 50 percent of the student body were enrolled in mathematics courses in Grades 10-12. In fact, fewer than 20 percent were enrolled in Grade 12.

3. The published goals for the high school mathematics program were stated too broadly.

4. The students in the summer school program did not have the advantages of a wide variety of staff.

5. There was no evidence of the use of supplemental materials and equipment.

6. Students did not have enough opportunities to learn mathematics from teachers who teach a variety of math courses.

Recommendations and Suggestions for the Senior High School Mathematics Program

1. It is recommended that the students have opportunity to pursue at least one course in mathematics from the division chairman.

2. It is recommended that a committee of counselors and junior and senior high school teachers be established to study the causes of the high attrition ratio in mathematics courses in their respective schools. This committee should also seek alternative ways to involve more students in mathematics; for example, by requiring more than one year of mathematics beyond Grade 8 for graduation. Other committee activities should include: (a) identifying ways to create more interest in math-science activities, such as setting up a math-science club; and (b) reviewing the present course offerings and making recommendations for change.

3. It is recommended that the present high school mathematics program be rewritten to include objectives stated in measurable terms for each course offering.

4. It is recommended that additional supplemental materials ano equipment be provided for student and professional staff use.

5. It is recommended that students have courses taught by teachers of mathematics or math-science, not "algebra" teachers.

6. It is recommended that student math materials and equipment be stored in the classrooms to maximize availability and use.

7. It is recommended that the journals and periodicals of the various professional mathematics organizations be housed in the teachers' library.

Part 6
Music

Elementary

There was a published course of study for Strongsville's elementary school music program; however, general observation of classes and informal discussions indicated that the children had few opportunities to participate in the activities described in the program.

The course of study begins with a statement of philosophy, "The Child's (sic) Bill of Rights in Music" (developed by The Music Educators National Conference), and followed by a list of eight nonbehavioral objectives. The content of the music learnings was distributed among six categories: singing, playing, moving, creating, listening, and reading. Basically, the traditional six categories can be reduced to two types of experience: (1) making music (singing, playing, creating, i.e., composing music; learning to read music should be taught through singing, playing, and composing it); and (2) responding or reacting to music (listening, moving, dancing).

In Strongsville , the children concentrated on singing and playing. They had few opportunities for the development of skills of listening perceptively to music, i.e., learning to hear what one listens to.

Kindergarten children learned music from the classroom teacher. Four music teachers shared the responsibility of teaching music to more than two thousand children in seven elementary schools. Two of these music specialists, working as a team, were in charge of teaching in four schools, whereas a third and fourth teacher were responsible for one and two schools, respectively.

An instrumental music teacher from one of the junior high schools visited three elementary schools and gave individualized instruction in playing band instruments to a few interested pupils.

The school libraries in each of the elementary school buildings had limited numbers of recordings and books on music.

Recommendations and Suggestions for the Elementary Music Program

1. It is recommended that the children have the advantages of at least one additional music teacher.

2. It is recommended that the children have the opportunity to study music for a minimum of 20 minutes daily (100 minutes weekly) in Grades 1-3, and a minimum of 25-30 minutes daily (125-150 minutes weekly) in Grades 4-6.

3. It is recommended that at least 30 percent of the weekly time scheduled for music to be devoted to the learning of skills conducive to listening to music with understanding.

4. It is recommended that the school library of each elementary building be provided with at least one book on music per five pupils.

5. It is suggested that three sets of the record library, RCA Adventures in Music, Grades 1-6 (12 records per set) be made available to teachers and pupils of each elementary school.

6. It is recommended that thirty minutes daily in each elementary school be scheduled for learning to play band instruments.

Junior High

A published guide was available in music at the junior high school level. It included a list of goals and objectives and an outline of content and learning activities. Music was a required subject in Grade 7 and an elective in Grades 8 and 9. The general music program did not seem to complement choir and band. Only 70 students out of about 650 in Grades 7-9 were enrolled in two general music classes at Center Junior High School. Some of the other students were in choir or band. No general music program was offered at Albion Junior High School, only choir and band.

The students enrolled in general music classes received 30 minutes of instruction every other day. In contrast, choir classes at both junior high schools met for 55 minutes every day. Albion students learned choral music from an English teacher; however, students in band had the advantage of an instrumental music specialist.

There were very few music books or recordings in the library at either school. Most of the available books were old editions, with contents not generally appealing to children in this age group.

Recommendations and Suggestions for the Junior High School Music Program

1. It is recommended that a course in general music be required for all students in Grades 7 and 8.

2. It is recommended that an additional music teacher be hired at Albion Junior High.

3. It is recommended that the school library of each junior high have at least one appropriate book on music and at least one record for every three students. Each collection of records should include representative compositions from the baroque to the modern periods in the following suggested proportion: 15 percent baroque period, 25 percent classical periods, 35 percent romantic and impressionistic periods, and 25 percent modern and contemporary periods, with appropriate emphasis on American contemporary music.

Senior High

The published high school music program covers six general objectives and meets, in part, the philosophic goals of the district. The school offers three elective music options: band, choir, and a course in music theory. Interviews with the music staff revealed that plans were in the making for a string orchestra. This activity would augment the informal activities already available, such as the jazz band.

The students had the learning benefits of a full-time band director, a choir director who also serves Center Junior High School, and an instrumental teacher who serves both junior high schools as well as the high school.

The available facilities were judged adequate. There was ample student practice room, an instrument storage room, and a place for choir and band rehearsals. A complete selection of instruments was available, and the acoustics in the auditorium were satisfactory.

The availability of a varied and extensive selection of sheet music, books, phonograph records and tapes was very limited. The same was true for reproduction equipment, such as phonographs and tape players.

Recommendations and Suggestions for the Senior High School Music Program

1. It is recommended that the instructional program in music be expanded to include a more diverse selection. Courses in this area could include Music History, American Folk Music, Jazz: America's Art Form, Composition, Music Appreciation, and Music Literature. Such courses should be designed to appeal to those students who do not wish to participate in a performance group.

2. It is suggested that at least one Carnegie Unit of music credit be required for graduation. Current minimum standards for Ohio high schools indicate that at least one course be available, which Strongsville already provides. The Survey Team believes that formal legislation requiring such a unit will occur in the near future, anyway, and that a local requirement in music will strengthen Strongsville's leadership in this direction.

3. It is recommended that an assistant band director be hired. This additional person would allow the director the necessary time for organizing and supervising instrumental music activities within the department.

4. It is recommended that the vocal music budget be expanded to allow greater increase, renewal, and enrichment in the choral repertory.

5. It is recommended that the availability of records, tapes and books be increased to allow at least one of each medium form to be available for every three students.

6. It is recommended that the number of record and tape players be increased to allow greater student use.

Recommendation for the K-12 Music Program

1. It is recommended that a K-12 Music Supervisor be appointed for the district. The first priority of the person appointed to this position should be the development of a sequential K-12 music program.

Part 7

Occupational Education

This portion of the report reviews the occupational and practical arts courses offered in both junior high schools and in the high school. At the junior high school level, there were three main areas or programs: business education, industrial arts, and home economics. The senior high school level included the latter three program areas plus vocational education, which consisted of cooperative office education, distributive education, occupational work experience I and II, and horticulture.

Programs were offered in separate facilities, which differed in size, geographical location, and levels of education. For these reasons, the evaluation of programs has been reported individually, according to school.

Albion Junior High School

Business Education

The business education program offered courses in typing and general business. The aims and objectives of the program were to have students learn fundamentals of business principles in addition to learning typing skills for personal use and/or clerical placement.

Typing

This facility (Room 213) was an exceptionally large laboratory that could be subdivided with a sliding curtain. Forty typewriters of three different brands were inset into individual typing tables. All tables,

chairs, and machines were observed to be in good condition.

The student activities seemed efficient, sequential, and meaningful. Enrollment was open to both sexes.

General Business

Two different coeducational classes were visited. The first class was involved in studying insurance. Students were organized into teams and were responding to written quizzes on each category of insurance. The students reviewed the subject matter independently and seemed to be absorbed in the activity. About half of the class session was devoted to quiz assignments. The materials used by the students were poorly reproduced, contained some misspelled words, and were difficult to read.

The second class session also dealt with insurance; however, part of the class discussion time had to do with "Progress Reports" (halfway grade for the current grading period), and involved thirteen evaluation items. These reports were to be taken home by each student for parent signature and comment. Students then received their next assignment dealing with stocks and stock market reports.

Class participation was active and the session moved rapidly.

Recommendation and Suggestions for the Business Education Program

1. It is recommended that the courses presently offered in this area be continued.

2. It is suggested that consideration be given to securing the typewriters. These are vulnerable to theft, especially since the "open concept" of the building does not provide for locking the area.

3. It is suggested that the general business course outline be reviewed in alternate years to update content in accordance with current business practices.

Home Economics

This program was designed to offer training to both sexes; however classes were not mixed. The laboratory was well equipped and moderate in size. The area may be somewhat congested when sewing machines are opened for student use. The area was very limited when classes exceeded twenty students.

The need for security was obvious. No locks were provided on refrigerators, cupboards, or other equipment. The "open concept" precludes a door to lock off the area. It is expected that the program will meet qualifications for vocational education status by September, 1975.

Both male and female students were enthusiastic and made complimentary remarks about the course. A boys' "Bake Off" contest was in progress on the day of visitation and had many entries. The classes observed were efficient and well organized.

Recommendations and Suggestions for the Albion Junior High School Economics Program

1. It is recommended that courses presently offered in this area be continued.

2. It is recommended that prompt attention be given and action taken to provide security for refrigerated food items and cupboards containing dishes, silverware, glasses and similar items. Since no door is provided in the "open concept" of the building, it is suggested that a folding gate, with lock, be provided.

3. It is suggested that consideration be given to moving the conference tables presently in Room 113 to an adjoining room and that more laboratory area be provided by having lecture and class discussion sessions outside of the laboratory.

4. It is suggested that consideration be given to altering the procedure for buying department food needs from one store in the area and the teacher having to transport groceries to the school building. Staples might be purchased from a wholesaler in larger quantities and delivered.

5. It is recommended that materials such as pots and pans, glasses, dishes, and tableware that have been "borrowed" from the laboratory be replaced and secured.

6. It is suggested that more sewing machines be purchased to bring the total to fifteen in order to accommodate larger classes and to reduce student waiting time for machines.

Industrial Arts

One moderate size shop was equipped to offer training in mechanical drawing, basic electricity and woodworking. The facility contained about twenty work stations at benches. There were nine pieces of well placed power equipment. The handtool supply was ample; however, it was of inferior quality. There was a partitioned rack on the shop wall that contained safety goggles. The woodwork texts were old and in short supply.

All shop courses were open to male and female students but not mixed. The budget for lumber was adequate. The supply budget for nails, screws, and related hardware did not meet the needs of the shop. There were no plans for expanding the program. Shop safety was satisfactory. Boys with long hair who planned to use power equipment were required to wear hair covering.

The class atmosphere throughout the sessions observed seemed positive.

Recommendations and Suggestions for the Albion Junior High School Industrial Arts Program

1. It is recommended that courses presently offered in this area be continued.

2. It is suggested that consideration be given to expanding the program to include the fundamentals of sheet metal fabrication, plastics, and small engine repair.

3. It is recommended that adjoining Room 13, presently utilized for storage of athletic equipment, be equipped for mechanical drawing and be a part of this program.

4. It is recommended that a modern industrial arts textbook be selected and that approximately fifty copies be made available for student use.

5. It is recommended that a ventilating system and a central vacuum system be installed in the shop area. Check O.S.H.A. requirements.

6. It is suggested that a lumber rack be purchased for the storage room and that more storage area be provided by 'stacking' on a rack.

7. It is suggested that an office area be provided for the teacher.

8. It is suggested that all handtools, floor and/or hand power equipment purchased for the shop be sturdy enough to withstand daily use by students.

Center Junior High School

Business Education

This program included instruction in typing and general business with mixed enrollment open to both sexes. The facility, Room 202, was adequate in size and contained thirty-two student typewriter stations. Six other machines were available for replacement. All machines were operating, and a weekly service plan has been arranged. The atmoshpere throughout the class session was positive.

Teachers and students reported no shortage in supplies. The objectives of the business education courses were the same as for Albion Junior High School. Students reported that the program was valuable to them and well organized.

Recommendations and Suggestions for the Center Junior High School Business Education Program

1. It is recommended that the courses presently offered in this area be continued.
2. It is suggested that future purchases of typewriters include various brands to provide diversity in learning.
3. It is suggested that an annual program be formulated to replace a percentage of typewriters each year to spread the financial costs over a period of four years.
4. It is suggested that screens be installed to keep flies and flying insects from entering the room via the radiators-particularly on weekends.

Home Economics

Two laboratories were equipped and served as instructional areas for this program. One of these, Room 211, was equipped and used for foods

preparation. The other laboratory, Room 214, was equipped and utilized for learning sewing, homemaking, and child care. Instruction was provided for both sexes, but groups were not mixed. Coeducational learning is planned for the 1975 - 1976 school year. The food laboratory offered vocational and non-vocational instruction.

Foods

Two class sessions were observed in this facility: one male and one female group. The laboratory was not large, somewhat crowded, and well-equipped.

It was reported that this course included some food items that have become very expensive. Substitutions were being made. Both classes showed evidence of efficient and active learning. Both student groups were very enthusiastic, the boys perhaps a little overly so. The boys' group was planning and preparing for a class spaghetti dinner. They were observed in a bread-baking session.

A small storage room was provided within this room and contained ample food ingredients and stock items. The linoleum floor covering contained several badly torn spots. These were a safety hazard.

This school had an active chapter of the national Future Homemakers of America. It was open to both boys and girls.

Homemaking

The laboratory, Room 207, was bright, well lighted, and a bit overcrowded. All home economics learning, other than foods, was offered in this facility. It was open to both boys and girls.

The ten or twelve sewing machines were housed in a floor-type cabinet and stored overhead, off the floor. It was assumed that when these machines were placed on the floor, the area became very congested.

A class of boys was in session during the visitation. They were learning how to sew on buttons. They seemed to enjoy the activity.

A fashion show is held each spring, and sewing students model their school-made garments.

Recommendations and Suggestions for the Center Junior High School Home Economics Program

1. It is recommended that the courses presently offered in this area be continued.

2. It is recommended that prompt attention be given to the repair of the linoleum floor in Room 211.

3. It is suggested that the present procedure for purchasing food items for home economics be revised to include a vendor delivery service.

4. It is recommended that attention be given to the prevention of wasps entering Room 214 via the ceiling-wall molding on the west wall of the room.

5. It is recommended that electrical outlets be installed on the west wall of Room 214 to provide a more flexible placement of sewing machines, pressing facilities, and related equipment.

6. It is suggested that three or four more sewing machines be added to the present supply in Room 214 better accommodate classes of twenty or more and reduce the student waiting time for machines.

Industrial Arts

One medium-sized shop was available for mechanical drawing, woodworking, and basic electricity. Class sizes ranged up to twenty-five, even though there were only twenty work stations. The eleven pieces of power equipment were well placed and were all in operating condition. A well stocked handtool cupboard was provided. Safety goggles were available in an open-type partitioned wall cabinet. There was adequate storage space for lumber stock and student projects at the shop floor level and on an upper balcony.

A boys' woodworking group and the two girls' classes were observed. Students with long hair were required to wear a suitable head covering for safety. Student learning appeared efficient and active.

The shop area was utilized by girls from the St. Joseph's parochial school during the last hour of the day.

The handtool and supply budget was adequate. Students paid for their supplies used in personal projects.

Recommendations and Suggestions for the Industrial Arts Program

1. It is recommended that the courses presently offered in this area be continued. Course content should be reviewed every two years to update contents to conform with technological advances.

2. It is suggested that consideration be given to expanding the industrial arts offerings to include the fundamentals of sheet metal fabrication and plastics.

Business Education

Courses in Business Education included a variety of offerings, such as bookkeeping I & II, clerical office practice, shorthand I & II, and typing I & II. Classes in all categories were visited.

It was reported that some of the business courses being offered were to be transferred to the Joint Vocational School in September, 1975. It is expected that one member of the staff in this department will be moved to the Vocational School.

Typing

The typing room contained thirty-five typewriters. There were twenty-seven students in the room at the time of the visitation. Machines were all of the same make. Although all machines were operating, many were old and in need of replacement. A weekly service program was available to keep machines in operating condition; however, some of these needed new parts and major overhauls.

The room was well lighted and air conditioned. There was a shortage of some supplies, such as typewriter ribbons and textbooks. The course allows students to work at their own speed. "Catch up" days provide opportunities to make up missed assignments. A number of students made complimentary remarks about this program.

Clerical Office Practice

Although the clerical office practice course is open to male and female

students, the majority of participants by far are female. Training in this program was designed to prepare students for office positions on a part or full-time basis. Students purchased their own workbooks. The school furnishes workbooks and materials to those who are indigent. Textbooks were furnished and were in good condition and in good supply.

Assignments involved the use of typewriters and adding machines. All machines were operable, but many were old and obsolete.

Shorthand

This course prepared students to perform secretarial duties or to take efficient notes in school classes.

There was no variable-speed sound machine available for dictation purposes.

Recommendations and Suggestions for the Senior High School Business Education Program

1. It is recommended that the courses presently offered in this area be continued. A review of the course of study should be made every two years to incorporate the modern trends in handling business procedures.

2. It is suggested that the business program be expanded to include minicourses, such as: legal secretary, medical secretary, and foreign service secretary.

3. It is suggested that a program of equipment depreciation be established to replace some equipment each year to minimize the necessity for large expenditures at one time.

4. It is recommended that a diversification of brands of typewriters for instructional purposes be provided.

5. It is recommended that a number of electric typewriters be purchased for student learning in the typing laboratory.

6. It is recommended that variable-speed sound equipment be purchased for learning shorthand.

7. It is recommended that mimeograph and other duplicating equipment be purchased for the office and eliminate the necessity for doing such work in the business education classrooms.

Home Economics

This program included offerings in foods, needlework, homemaking, and child care. Enrollment was open to both sexes. Two laboratories were available. One for food preparation and the other for all other phases of home economics learning.

Foods

The foods laboratory was well equipped, small, and crowded. The equipment was modern and adequate. The conference tables in the room left a very limited area for performing kitchen activities. The facility was in good condition, and all the equipment was operable.

There was some shortage in small equipment and accessories, such as can openers and electric food mixers. There was no way to lock refrigerators and cupboards to prevent theft.

Students were encouraged to bring food ingredients from home. The students cooperated with this request.

Sewing, Homemaking, and Child Care

The laboratory, Room 121, was fairly large; however, it became crowded when sewing machines were opened for sewing classes. There was a shortage of supplies such as needles, muslin, textbooks, magazines, and reference materials. Course materials were being revised and updated. Enrollment was open to both sexes. A small number of male students participated in the program.

On the day of visitation, the class was planning a future session when preschool children would be brought in for a 'real experience' in child care. The teacher brought in many personally-owned items for child care, such as children's books, toys, magazines, and brochures.

Students interviewed were complimentary in their remarks about the course content and learning activities.

Recommendations and Suggestions for the Senior High School Home Economics Program

1. It is recommended that courses in this area be continued and that coeducation be encouraged.

2. It is recommended that security measures be taken to lock the food supply and kitchen utensils in the foods laboratory, Room 119.

3. It is suggested that consideration be given to offering minicourses such as cake decorating and gourmet cooking.

4. It is suggested that consideration be given to the use of an adjacent classroom for lecture and conference purposes. This would eliminate the necessity for conference tables in the foods laboratory and provide more space for kitchen activities.

5. It is recommended that few large cooking pots, frying pans, small electrical hand appliances, and text and reference books be made available.

6. It is suggested that foods used in the course be provided by the school system and delivered by the vendor.

7. It is suggested that the necessary supplies for sewing, homemaking and child-care laboratory be provided.

Industrial Arts

The Industrial Arts Program in this school included four nine-week minicourses in woodworking, electricity, photography, mechanical drawing, and general metals. Plans for 1975-1976 included the extension of woodworking and metals II to a full-year course and Metals I and Electricity I to a one-semester course.

The aims and objectives of the industrial arts program are to offer a program that is "exploratory" in nature. Here the student is exposed to "hands on" experience in various crafts to determine his or her interests in these fields.

Electrical

The facility is small and crowded and limits class size to eighteen. The lack of windows and ventilating in this laboratory resulted in exposing students to fumes created by soldering and smoke from the adjacent wood laboratory.

Storage space was very limited to three metal cupboards. Lighting was good.

Testing equipment and handtools were in good supply and in good condition.

The course content was limited to basic fundamentals of electricity. In addition to the laboratory experiements provided in the course of study, students were permitted to bring in their own electrical equipment, such as radios, tape recorders, and record players, for minor repairs.

The Survey Team believes that this electrical course was accomplishing its aims and objectives.

Woodworking

The size of this shop area was far from adequate and the shop lacked many necessities for an acceptable program. Observations of the area and its contents showed:

1. No supply room or area for student projects.
2. No dust collection system.
3. No teacher station.
4. No ventilating system, only a window.
5. No supply of safety goggles in evidence.
6. The only storage area for the lumber and supplies was a small shelf hung from the ceiling.

There were only about twelve work stations in the shop even though class size had been as high as nineteen.

The power tools and supply of handtools were adequate and satisfactory. The six-week schedule in this shop, plus the lack of project storage space, placed great limitations on the student assignments in this course. The

crowded conditions and were a great hindrance to learning and were not in conformity with O.S.H.A. safety requirements.

General Metals

The shop area was recently expanded, and a ventilating system was installed. This was the largest of all industrial arts shop areas in the building.

A survey of the shop equipment indicated that the shop was well equipped, with one or two exceptions; for example, the shop contained an obsolete mill machine. No one knew how to operate it, and it was therefore of no value to students.

The other equipment and machines were diversified and could provide for learning in a variety of fields, such as sheet metal, plate work, foundry products, electric and oxy-acetylene welding, and metal turning. Data revealed that very little, if any, student use was made of most of the machines.

There was a noticeable lack of safety goggles. No student in the shop was wearing them, even though they are required by state law and O.S.H.A. to do so.

This shop area contained two small storage rooms and provisions for storing metal stock was very limited. A number of students in attendance at the time of the visitation were not working and reported that they lacked project material, which had been ordered, but not delivered, to date.

Mechanical Drawing

This facility was large, well lighted and contained sixteen drawing tables, which were quite a bi- larger than necessary. The large tables limited work stations to sixteen and some classes were larger than this number.

Tables were equipped with attached T-square and adjustable slides, much like those utilized by professional architects. Students interviewed reported that they enjoyed the learning activities in the course. They said that most supplies were readily available although some speciality items, such as ink pens and lettering sets, were not.

Photography

Aims and purpose of this course were to teach the basic fundamentals of photography, such as film information, darkroom chemicals and procedures, and timing.

This eighteen-week, one-semester, coeducational course is an elective open to all students interested in black and white photography.

At the time of the visit, the class was listening to a lecture. No laboratory work was being done.

The darkroom was recently constructed of plywood, covering a wooden frame. It was functional and unattractive. Equipment housed in this facility was diversified and limited to about ten work stations. Class size reached as high as twenty-five in some classes.

It was reported that there was considerable interest in this course and it provided good learning opportunities in photography at the hobby level. In some cases, the course stimulated student interest enough to motivate them to enroll in courses of a higher level.

Recommendations and Suggestions for the Senior High School Industrial Arts Program

1. It is highly recommended that adequate safety equipment be provided as mentioned in the previous paragraphs.

2. It is recommended that the courses presently offered be extended to a minimum of one semester, or one full school year.

3. It is recommended that courses of study in the Industrial Arts areas be reviewed every two or three years to incorporate new technological methods and processes.

4. It is recommended that more storage and work space for some shop areas be provided. The possibility of Federal and State funding should be investigated to determine the availability of financing such construction.

5. It is recommended that the total industrial arts program be expanded to include offerings in plastics and home repairs for male and female students, as well as small engine repair.

6. It is suggested that students have opportunity to learn how to use the various machines and equipment.

7. It is suggested that current technical magazines, such as Mechanics Illustrated and Popular Science be made available to interested students for the purpose of acquiring ideas for student projects.

Vocational Education

The vocational offerings in this school included Cooperative Office Education, Distributive Education, Horticulture, and Occupational Work

Experience I & II.

Cooperative Office Education

Sixteen senior students were enrolled in this program. Three were graduated earlier in the year. A conference with the coordinator revealed that all students in this group were working and that the program had established a fine relationship with employers. Student-employee evaluation sheets were submitted by employers on a prescribed schedule. These evaluations included reports on: attitude, work habits, personality, courtesy, adaptability, typing, filing, duplication, machine transcriptions, calculators, quality and quantity of work, business math, initiative, punctuality, judgment, and dress. Some students remained on the same job after graduation.

Outside Work Experience

This program was designed for students who have been "turned off in school. Both coordinators reported that the program was successful and that most of the boys were employed. Student interviews indicated satisfaction with the school and the program.

Participants in this program consisted of two groups and constituted a total of thirty-four males. Both groups were visited. One class was preparing oral and written reports on reading requirements and work experiences. The other class was making plans for an employer appreciation dinner.

Recommendations and Suggestions for the Cooperative Office Education and Outside Work Experience Programs

1. It is recommended that all courses in this area be continued.

2. It is suggested that the O.W.E. students have more opportunity to learn communications skills for perhaps 30 to 40 minutes daily. This should be done with a teacher.

3. It is recommended that office equipment used by C.O.E. students, such as electric typewriters, adding machines and calculators be updated. Plans should be made for the replacement of a percentage of equipment on a yearly basis.

Horticulture

Facilities for this program included a greenhouse, an adjoining classroom, and a tool and equipment storage area. The latter is a shared garage-type building and is too small.

Fifty-seven students were enrolled in Horticulture I, II, & III. It is expected that in September, 1976, Horticulture II & III will be transferred to the new Joint Vocational School and three sections of Horticulture I will be located at the high school.

The Flower Design phase of this program held great interest among students and employers. A "Plant of the Month Club" was organized for students and school employees and provided corsages, cut flowers, and other flower arrangements for in-school personnel.

Students also learned to repair small engines. Servicing was done on school and student owned equipment. An additional enclosed area was needed to provide a facility for such work in inclement weather.

Students indicated that the program provides good training for employment in this field. Several said they were interested in higher education in horticulture and agriculture.

Recommendations and Suggestions for the Horticulture Program

1. It is recommended that courses offered in this program be continued.

2. It is recommended that the facility be expanded to include an indoor equipment repair area and a work room for use of soil, peat moss, and related supplies.

3. It is recommended that an "Advisory Group," consisting of local horticulture vendors, greenhouse operators, and similar employers, be organized.

4. It is suggested that a refrigeration unit be installed in the present glass plant and flower storage case.

5. It is recommended that more small handtools and supplies, such as scissors, knives, pruning shears, wire cutters, arrangement containers and corsage bags, be made available.

6. It is suggested that some business practice information be included in the Horticulture program.

Distributive Education

This program was designed to span two years; however, it is expected that the first year of the program will be transferred to the J.V.S. and that seniors will return to the high school for their second year of training.

All students in this program were employed. A good relationship existed between the school and employers. Students went on field trips and heard outside speakers throughout the school year. Students said

they were happy and satisfied with the course.

Recommendations and Suggestions for Distributive Education Program

1. It is recommended that this course be continued.

2. It is recommended that current magazines on Distributive Education be made available as reference materials for class study.

3. It is recommended that a Distributive Education office be made available, with a phone and a direct line for receiving messages or contacting employers. This facility should be close to the Distributive Education classroom.

4. It is suggested that student participation in D.E.C.C.A. be continued and that money-raising ventures be promoted to subsidize students' attending state and national meetings.

5. It is suggested that a classroom be assigned to this course to be available for all class sessions throughout the school year.

Part 8
Physical Education and Health

Data for the evaluation of the health and physical education programs were gathered in January and February, 1975. All schools, except Drake Elementary were visited. Approximately one day was spent in each building. A major portion of the data was gathered from interviews with teachers and principals. Additional information was obtained by talking to students, observing classes in session, and examining facilities, equipment, and classroom and library materials.

Time limitations and a concern about possibly disrupting classroom routines precluded interviewing each classroom teacher. Those interviewed were selected on the basis of their availability (during their free periods, at lunch, and after school). At the elementary school level, data were gathered from principals, physical education specialists, and from teachers representing each grade level; at the secondary school level, from teachers specializing in health and physical education.

Elementary

Each class in Grades 1-6 had physical education with a specialist for at least one thirty-minute period per week. Additional instruction by classroom teachers depended upon the availability of the gymnasium and the inclination of the teacher. Scheduling of the gymnasium's use for supplemental instruction by classroom teachers differed among buildings. At one school, the schedule was set by the principal. All children received a second thirty-minute instructional period. At other schools, teachers "signed up for the gym" at their discretion.

A 1968 elementary physical education program description was available to provide scope and sequence. It was written for a three-day-a-week schedule and did not reflect the current program being

implemented by the specialists. Few teachers interviewed were using it; some were not aware of its existence.

Health Education

In health education, the Scott, Foresman textbook series provided the scope and sequence for instruction. Health education in the elementary schools was apparently part of the science program. In the lower grades, no specific provision was made in the parent-teacher conferences to report progress in health knowledge, attitudes, or practices. At the intermediate level, a health grade may be recorded separately or as part of the science grade. The degree to which health instruction was offered depended largely upon teacher values. In some buildings, health learning was departmentalized. In those cases, teachers with a high interest or preparation in the subject were assigned to teach all of the health, or health and science, curriculum to all children in Grades 4, 5, and 6.

At the primary level, children learned health with science (Laidlaw) and social science (Silver Burdett).

The frequency of learning opportunities in health differed within grade levels and from one grade level to the next. The amount of learning time at the primary level ranged from twelve 20-minute periods

a year (240 minutes) to two 30-minute periods a week throughout the year (2,160 minutes). At the intermediate level, time spent ranged from approximately one hour of incidental learning per week (2,160 minutes) to 200 minutes of highly-organized learning four out of every nine weeks (3,200 minutes).

A separate maturation unit was studied by all Grade 6 students. This unit was not included in the health text. The responsibility for organizing the content of the unit rested with the teacher. Additional learning activities could include two field trips to the Cleveland Health Museum (one for reproduction education and one for V-D education), films from the county library, and other aids such as microscopes, bioscopes, models, filmstrips, transparencies, and school library books. The maturation unit was learned coeducationally, except for the time devoted to menstrual hygiene, which was for girls only.

Approximately 200 of the 4,000-6,000 volumes in each elementary school library were related to health topics—careers in medicine, health problems, physiology, and health heroes. The newer schools had fewer, but more, current books than the older schools. The quality and quantity were generally excellent; however, some needed correcting or replacing. One text, Goldsmith's Anatomy for Children, for example, stated that a body cell has 48 rather 46 chromosomes.

Older books on health careers tended to reflect some sex stereotyping; e.g., the nurse was always a female; the doctor, a male.

There was no apparent plan to articulate health instruction within or between grade levels.

School Health Councils were not evident.

Recommendations and Suggestions for the Health and Physical Education Program

1. It is recommended that the elementary physical education course of study be revised as quickly as possible. Perhaps the newly established Physical Education Curriculum Committee could give first priority to completing this portion of the K-12 program.

2. It is recommended that a balanced physical education program be selected and implemented in accordance with the standards of the Ohio State Board of Education (1970) and the parameters of the forthcoming course of study.

   It is suggested that consideration be given to adopting the program developed at ERCA (1969). It is designed especially for use by elementary school classroom teachers and physical education specialists.

   The program that is finally implemented should be designed to:

   a. encourage vigorous physical activity and the attainment of physical fitness
   b. develop motor skills (nonlocomotion, locomotion, reception, and propulsion)
   c. foster creativity
   d. promote sound safety practices
   e. enhance self-understanding and self-acceptance
   f. stimulate social development

The program should provide learning opportunities in:

a. fundamental movements (including specific activities for developing motor perception)
b. rhythms (including mimetics, singing games, simple folk dances, and rope jumping)
c. games requiring little organization
d. sports skills practice
e. stunts and tumbling
f. large and small apparatus work
g. aquatics, whenever possible

3. It is recommended that the school day be organized to permit an increase in the time allotment for learning in physical education. The Ohio State Board of Education (1970) has suggested that the following weekly time allocations of directed physical education are minimal:

Grade 1 - one 30-minute period per week
Grade 2 - two 30-minute periods per week
Grade 3 - two 35-minute periods per week
Grades 4 to 6 - two 40-minute periods per week

Higher standards are suggested in a position paper by the American Alliance for Health, Physical Education, and Recreation (1970):

> Pupils in elementary schools should participate in an instructional program of physical education for at least 150 minutes per week in addition to time allotted for free and/or supervised play.

4. It is recommended that one of two alternatives be exercised:

a. Increase the number of qualified physical education teachers in the Strongsville elementary schools to conduct all of the physical education classes. Assure that all specialists understand human movement, child growth and development, current learning theories, and are capable and motivated to work effectively with all children of this age level.

b. Involve the physical education teachers more directly as resource people to provide regular leadership and guidance to the classroom program. Together, the specialist and classroom teachers should be able to provide a program that is commensurate with the children's needs.

5. It is recommended that the inventory of physical education equipment and supplies at each elementary school be increased in accordance with the amounts suggested by the Athletic Institute or the Council.

   Equipment and facilities regulate to a large extent the physical education program. All children should have many opportunities to participate in the physical education activities; a goal of one ball, one rope, and similar equipment per child is realistic. To be active physically and to experience fully the learning situation, ample equipment and supplies in physical education are necessary. Table 3 contrasts the equipment and supplies inventory recommended by the ERCA (1969) and the Athletic Institute (1960) with that of the best equipped Strongsville elementary school. It is advisable that the physical education specialists be responsible for keeping an annual inventory. Both quantity and quality (poor, fair, good, excellent) should be noted.

6. It is recommended that indoor and outdoor facilities be improved according to the standards suggested by the Athletic Institute and AAHPER. The Athletic Institute and the American Alliance for Health, Physical Education and Recreation make the following recommendations:

   1. Gymnasium

      a. A minimum of 60 square feet per pupil in Grades K-3 and 100 square feet for pupils in Grades 4-6. If the gymnasium is used for recreation by the community, the area should be 4,860 square feet (54' x 90').

      b. Ceiling height 18' minimum; if used for community recreation, 22'.

      c. At least one wall should be free of obstruction for ball and target games and skill practice.

      d. Adjustable basketball boards enable the height of rim to be reduced for less mature participants.

e. A storage room of 175 square feet should be directly accessible from the gymnasium floor through a double door without a threshold. The area should have bins, shelves, racks, and hangers to facilitate storage.

f. A physical education office should be located near the gymnasium and storage room.

g. Equipment such as climbing ropes and poles, ladders, horizontal bars, vaulting boxes, and balance beams should be easily movable and so located as not to interfere with other activities.

2. Outdoor Play Area

a. No less than ten acres for each 500 children.

b. Enough paved surface to accommodate safe participation in the wide range of activities of a balanced program. During peak use periods, 100 square feet per child is considered minimal. Black-topped areas should be properly marked with lines, circles, courts, and fields to permit a wide variety of appropriate activities.

c. Grassy surfaces are resilient, nonabrasive, and attractive. They should be relatively level, free of rocks, glass, and debris and have a good drainage system.

d. Playground equipment should be safely located far enough from the building to keep noise from interfering with class instruction. The equipment should be organized to separate the primary-aged from the older children. A protective material such as a tanbark, shredded rubber, or a mat of interlocking rubber blocks under the equipment would help prevent injuries resulting from falls and increase usage of the equipment.

e. Suggested outdoor apparatus and equipment for use by 30 children at one time includes:

Materials	K-3	4-6
Balance beams (rails)	6	6
Climbing structures	2	2
Giant blocks/tunnels	6	0
Horizontal	2	2
Jumping standards	2	2
Crossbars	4	4
Multiple horizontal bars (Jungle Gym)	3	3
Slides: 6' height	1	0
8' height	0	1
Trampoline (junior)	1	1
Travel rings	1	1
Vertical ladders	1	1
Vertical ropes	4	4

In addition, certain playground equipment should be included to challenge the imagination of the children—simulated stagecoaches, fire engines, gaily-colored sculptured forms, and other objects.

7. It is recommended that a course of study be developed for health education. Learning experiences should be included to help children develop central health concepts. Resources such as the health text, supplemental materials, and field trips should be used to help students attain specified performance objectives. Serious gaps and overlaps in content coverage should be minimized. If health is to be integrated with other subject fields, the course of study should reflect the integrated program.

8. It is recommended that each school organize a school health council or make its function a part of the student council. A Council serves to represent different segments of the school community—children, teachers, principals, custodians, nurses, cafeteria personnel, and parents. The representatives meet periodically to discuss health and safety problems and strive to promote healthful school living. A Council can be an instrument for relating health instruction, health services, and a healthful school environment.

9. It is recommended that health teachers be given the opportunity to have regular meetings to share ideas on improving instruction in this area.

Junior High School

Physical education was taught by one male and one female specialist at each junior high school. Students at both Center and Albion School were scheduled for instruction on odd or even calendar dates. Class sizes varied from 15 to 37 students.

A 1968 Health and Physical Education Course of Study for Junior High School was available. There were separate sections for girls' and boys' physical education. The contents included:

- Philosophy (girls only)
- Purposes of junior high school physical education (girls only)
- Forty-week schedule of the physical education activities (both)
- Organizational procedures (both)
- Instructional units (both)
- Worksheets/ Study Sheets (both)

The program specified the following activities:

Team Sports	Boys	Girls
Basketball	7,8,9	7,8,9
Flag Football	7,8,9	---
Kickball	---	8
Soccer	7,8,9	7,8
Softball	7,8,9	9
Speedball	---	9
Volleyball	7,8,9	7,8,9
Gymnastic-Type Activities		
Balance Pyramids	---	9
Ropes and Bars	7,8,9	---
Stunts and Tumbling	7,8,9	7,8,9
Trampolining	7,8,9	7,8,9

Physical Fitness Testing	Boys	Girls
Fall Testing	7,8,9	7,8,9
Spring Testing	7,8,9	7,8,9
Rhythms		
Folk Dances	---	8
Mixers and Play Party Games	---	7
Social Dances	7,8,9	7,8,9
Squares and Contras	---	9
Individual and Dual Sports		
Track and Field	7,8,9	7
Wrestling	7,8,9	---
Coed Activities	7,8,9	7,8,9

Boys and girls learned separately, except during the one- to three-week period of coeducational activities. At Center School, students were scheduled into mixed grade level classes in no particular ratios; at Albion School, children in Grades 7,8, and 9 were scheduled separately.

Heterogeneous grade-level grouping may expedite administrative scheduling for the rest of the curricular subjects, but it can limit certain aspects of the physical education program. This is particularly true in the area of team sports which accounted for approximately 50 percent of the junior high school program. It is difficult, if not impossible, to maintain a sequence of instruction where abilities and maturity levels are so divergent. In activities where team work is not a major factor, the type of grouping is less relevant. Individuals proceed at their own rates as they progress from simpler to more complex skills.

Activities are selected by physical education teachers as a means to an end. They are directed toward the attainment of objectives unique to physical education, such as physical fitness and movement skills, and of others to which all subject areas contribute. It is generally recognized that the junior high school program should be exploratory. Grade placement of activities can be varied according to the background provided the students through the elementary school learning experiences. The aim should be to introduce a wide variety of activities suited to the students' needs. The broader and deeper the program offered, the easier will be the attainment of the objectives. Students establishing a solid foundation through their junior high school years are prepared to participate in an individualized elective-type program at the high school.

The district's 1968 physical education program represented a balanced program under conditions that existed then. In 1974-1975 it no longer reflected the program being implemented. One notable change was the expansion of the gymnastics-type activities to include apparatus for Olympic events.

Health Education

Health was learned from qualified health educators whose primary responsibility was to teach that subject. The teacher at each school was included in science department meetings. All Grade 8 students were scheduled to receive health instruction one class period a day for

a semester, approximately 90 class sessions. Program content was outlined in the Health and Physical Education Course of Study. The first six weeks was designed to study systems of the body; the second six weeks for reproduction, veneral disease, boy/girl relationships, and drug use and abuse. The third six weeks provided for learning in personality, mental and emotional health, skeletal and muscular systems, and first aid. The basic text used was Health and Safety for You (McGraw-Hill, 1969). The book listed in the Course of Study as the basic health text was Your Health and Safety (Harcourt, 1963) and was used as a supplemental resource.

Other aids included a field trip to the Cleveland Health Museum, films scheduled from the Cuyahoga County Library, and school-owned books, pamphlets, filmstrips, transparencies, and models. These seemed adequate by most standards, although the number of volumes in the libraries relating to health were limited.

There was some question as to the adequacy of the physical facilities for learning health.

Recommendations and Suggestions for the Junior High School Physical Education and Health Program

1. It is recommended that the junior high school health program be revised. Both male and female teachers should work together to eliminate possible inconsistencies between the boys' and girls' programs. This would allow a uniform health program for both boys and girls.

2. It is recommended that the grouping of students for instruction, particularly in team sports, be done by grade level rather than

by mixing grades. It is suggested that students be guided toward self-direction in skill improvement. Consideration should be given to allowing students to use reference materials, such as a program developed at ERCA (1973). A program of that nature could be helpful in tailoring learning experiences to meet individual needs.

3. It is recommended that a plan be established to attain the optimal conditions for improving the physical education program relative to student grouping, time allotment, equipment, and facilities. Such improvement could occur over a period of several years.

Whether or not a physical education program can function as an educational asset depends upon several factors — grouping of students and adequate time, facilities, and equipment. The grouping of students has already been discussed. Several resources provide guidance in dealing with the other factors. Such minimum standards as provided by the Ohio Department of Education (1968), the Society of State Directors of Health, Physical Education and Recreation (1972), and the Athletic Institute (1960), are suggested, to wit:

Time

Ohio:

> Based on a minimum six-hour day, at least one-fourth of the total instructional time of the school program shall be devoted to health and physical education and experiences in music, art, applied arts, business, and directed study.

Each pupil is required to study health and physical education each of the three years of junior high school.

The Society:

> The minimum instructional class period for middle schools and junior and senior high schools should be one standard class period daily, except where the length and frequency of the class periods are altered to offer students a more comprehensive program. Where modular or flexible scheduling is used, care should be taken to involve students in some combination of at least 300 minutes of physical education per week spread over three or more days.

All students should be involved each year in the instructional phase of the physical education program including those participating in varsity athletics, sports clubs, dance clubs, and the like.

Adaptive physical education should be provided for those pupils who are unable to participate successfully in the regular program.

Facilities

Ohio:

Physical education facilities shall include, but not be limited to, adequate:

(1) Tackboard and chalkboard
(2) Storage for instructional materials, equipment, and supplies
(3) Electrical outlets
(4) Artificial and natural light control
(5) Lighting for the visual task to be accomplished
(6) Area for reference materials
(7) Locker rooms and locker facilities for the enrollment, separate for boys and girls
(8) Shower facilities for the class enrollment
(9) Facilities for physical education staff
(10) Toilet facilities
(11) Ventilation system for locker rooms and toilet areas
(12) Outdoor areas developed for both boys' and girls' physical education and intramural program.

Athletic Institute

For general purposes, the gymnasium should be large enough to allow a minimum of 125 square feet of useable activity space for each youngster at peak load. Required area for locker rooms is fifteen to twenty feet per person. For storage of apparatus, mats, and other equipment, the minimum area needed is 250-300 square feet per teaching station.

Outdoors, the fields, backstops, and goals for the various games should be located in such a way as to permit overlapping use of the area during different seasons. A court games area should be surfaced with asphalt or

concrete. Basketball, volleyball, badminton, tennis, and shuffleboard are games that can be played on small areas with smooth playing surfaces. If the court is laid out for multiple use, removable net posts should be provided and suitable plates or covers supplied for capping the post holes. Recommended dimensions for game areas at the junior high school are:

Basketball - 50' x 84'
Softball - 200' x 200'
Touch football - 120' x 300'
Soccer - 165' x 300' (boys)
120' x 240' (girls)
Volleyball - 25' x 50'

Equipment

Ohio:

Instructional materials shall be provided...and shall be appropriate in kind and proper amount to achieve the goals in all areas of work and study within the educational program.

Athletic Institute:

For thirty in a group, the indicated item (I) participant (P) ratio is suggested:

Team Sports Activity

	I	P
Basketball		
- Balls	1	4
- Balls, junior	1	4
- Books, rule	1	10
- Carriers, ball	1	20
- Goals and nets	(Based upon facilities)	
Football		
- Balls, junior	1	5
- Balls, rubber	1	5
- Books, rule	1	5
Soccer/Speedball		
- Balls	1	5
- Goals and nets	(Based upon facilities)	

	I	P
Softball		
- Backstops, portable	1	20
- Bags, bat	1	
- Balls	1	2
- Bases, set	1	20
- Bats	1	3
- Books, rule	6	
- Gloves, fielder's	7	20
- Indicators, umpire	1	20
- Masks	1	20
- Mitts, 1st basemen	1	10
- Mitts, catcher's	1	10
- Plates, home and pitcher	(Based upon facilities)	
- Protectors, body	1	20
- Tees, batting	1	10
Volleyball		
- Balls	1	6
- Books, rule	6	
- Cables, nets, reels, scoring devices, and standards	(Based upon facilities)	
Gymnastics Activity		
Bars, horizontal	1	10
Bars, parallel (unevens)	1	30
Bars, parallel (evens)	1	10
Beams, balance	1	20
Belts, safety	1	10
Boards, beat	1	10
Books, rule	6	
Boxes, vaulting	1	20
Horses, long/side	1	30
Magnesium, carbonate	2 lbs.	
Mats, apparatus	(Based upon apparatus)	
Mats, tumbling	1	5
Rings	1	
Ropes, climbing	1	5
Trampolines	1	30

Rhythm Activity	I	P
Case, record carrying	1 only	
Record player	1	30
Records	(Based upon program)	
Individual and Dual Sports Activity		
Track and Field		
- Bar, cross	1 metal per pit	
- Batons	1	4
- Blocks, starting	1	4
- Boards, take off and toe	(Based upon facilities)	
- Books, rule	6	
- Box, vaulting	(Based upon facilities)	
- Cartridges, for starting gun	(Based upon equipment)	
- Circles, discus	1	15
- Circles, shot	1	10
- Discus	1	10
- Guns, starting	1 per class	
- Hurdles, adjustable	10 per lane	
- Markers, shot/discus	(Based upon facilities)	
- Poles, vaulting	1	10
- Shots	1	10
- Standards, finish line, jump, and vault	(Based upon facilities)	
- Yarn, finish line	(Based upon facilities)	
Wrestling		
- Boards, score	1	
- Books, rule	3	
- Books, score	1	
- Covers, mat	1	
- Headgear	1	1
- Mats, floor	1	
- Mats, wall	(Based upon facilities)	
- Pads, knee, pair	1	1

Coed Activity	I	P
Deck Tennis		
- Rings	1	4
- Standards and nets	(Based upon facilities)	
Table Tennis		
- Balls	1	2
- Book, rule	3	
- Paddles	1	1
- Tables, nets, and net posts	(Based upon facilities)	

4. It is recommended that the junior high school health education program be revised in accordance with a K-12 plan (the committee is currently working on a science/health course of study revision). It is further suggested that junior high school health teachers be represented on the revision committee.

5. It is recommended that the physical facilities for health education be improved to conform to the checklist suggested by the Athletic Institute.

   The checklist suggested by the Athletic Institute (1960) is a reasonable guide to follow:

   a. Space for 35 square feet per pupil, maximum of 30 pupils

   b. Flexible teacher location

   c. Provision for various teaching methods, including laboratory demonstration

   d. Flexibility of seating

   e. Hot and cold running water and gas outlet

   f. Educational exhibit space

   g. Storage space (included in 35 square feet per pupil)

   h. Provisions for using audiovisual devices (electrical outlets, window shades, screens)

Although health education draws from different disciplines for its content, it is essentially a behavioral science. Knowing the effects of certain health abuses is not sufficient for affecting good health. Students should have opportunities to understand the causes of their own and other's behavior and how human needs can be met constructively in a manner compatible with sound life philosophies. Such a process indicates group discussions as a central teaching modality. The physical facility should not be a restriction.

6. It is recommended that health teachers from all levels be given opportunities to meet together to share ideas and clarify purposes.

Senior High School

Judgment of the physical education program is tentative at best. The instructors, two men and one woman, worked well together and established an excellent rapport with the students. An examination of the report of the North Central Association review committee that evaluated Strongsville Senior High School in February, 1972, revealed that several of the recommendations made at that time were still applicable in 1975. It must be noted, however, that Strongsville is planning instructional program improvements for the 1975-1976 school year.

All students were required to take two semesters of physical education instruction. Each class met for one period of 55 minutes, including dressing and showering time, on alternate days. Most students took the course in Grade 10. In the 1975-1976 school year, an elective program of minicourses will be offered those who have passed the one-year required course. Each minicourse will meet on

alternate days for one quarter. To receive 1/2 credit, students must successfully complete two minicourses during the same semester. The activities planned are diversified and emphasize lifetime sports. Students will be allowed the opportunity to select activities according to their own needs and interests. The three instructors have cooperatively planned and will conduct the minicourses mostly as coeducational activities.

The adequacy of the facilities and the quality of equipment were reviewed. Indoors, the use of the gymnasium and the rooms above and to either side were adequate. Although the gymnasium was large enough, the lack of necessary storage space precluded maximum use.

The outdoor usable play area, a baseball field approximately 250' x 250', was substandard; however, the total area was more than adequate.

Health Education

Health education was offered in three courses: Health 10, Family Health, and Senior Health.

Health 10 met one period daily for one semester and carried 1/2 credit. The three texts for the course, Masculinity and Femininity, First Aid and Personal Safety, and Human Persons and the Use of Psychoactive Agents, described the course content.

The other two courses met one period daily for two semesters, carried one credit, and were electives. Family Health dealt with Personal Adjustment, Marriage, and Family Living, the title of its text. Senior Health was geared to students interested in a career in one of the health professions. Modern Health (Holt) was the text. There was a heavy concentration of study on anatomy and physiology in this course.

The offerings were excellent. They were directed to meet the needs of all students. There were some overlaps and gaps in the Grade 7-12 range that could have been avoided by better system-wide planning. The junior and senior high schools each devoted about six weeks to first aid learning.

Recommendations for the Senior High School Health and Physical Education Programs

1. It is recommended that the equipment and facilities for both health and physical education be improved to meet standards of the Athletic Institute. Plans should be made and implemented to develop field games and court games areas on the same basis suggested for the junior high schools. The recommended dimensions according to the Athletic Institute (1960), for the senior high school areas for selected activities are:

Activity	Playing Area	Total Area (including buffer space)
Field Games		
Archery	15,000 sq. ft. (50' x 300')	20,000 sq. ft.
Field Hockey	54,000 sq. ft. (180' x 300')	64,000 sq. ft.
Football (touch)	57,600 sq. ft. (160' x 360')	80,000 sq. ft.
Soccer (men)	49,500 sq. ft. (165' x 300')	65,000 sq. ft.
Softball	75,625 sq. ft. (275' x 275')	75,625 sq. ft.

Activity	Playing Area	Total Area (including buffer space)
Court Games (one game)		
Badminton	880 sq. ft. (20' x 44')	1,800 sq. ft.
Basketball	4,200 sq. ft. (50' x 84')	7,200 sq. ft.
Paddle Tennis	800 sq. ft. (20' x 44')	1,800 sq. ft.
Tennis	2,028 sq. ft. (26' x 78')	6,500 sq. ft.
Volleyball	1,800 sq. ft. (30' x 60')	2,800 sq. ft.

The list suggested by the Athletic Institute (1960) might serve as a standard. The following are selected activities showing the recommended ratio of items (I) to the number of participants (P):

Activity	I	P
ARCHERY		
Arrows	4	1
Books, rule	3	30
Bows	1	2
Cards, score	1	1
Faces, target	1	8
Guards, arm	1	1
Quivers, ground	1	8
Quivers, shoulder	1	1
Stands, target	1	8
Tabs, finger	1	2
Targets	1	8

Activity	I	P
BADMINTON		
Books, rule	1	30
Cards, score		
Nets	1	10
Presses, racket	1	1
Rackets	1	1
Shuttlecocks, official	1	2
Shuttlecocks, practice	1	2
Standards, set	1	10

Activity	I	P
BASKETBALL		
Balls	1	4
Balls, junior		
Books, rule	1	10
Books, score		
Carriers, ball	1	20
DANCE and RHYTHMS		
Case, record carrying	1 only	
Instruments		
Percussion		
Drums	1	15
Gourds	1	30
Tambourines	1	15
Tomtoms	1	15
Pianos	1	30
Players, record	1	15
Records		
Tables, with wheels	1	30

Activity	I	P
GOLF		
Bags, golf	1	1
Bags, practice ball	1	
Balls, golf	3	1
Balls, practice	3	1
Books, rule	6	
Clubs, iron (No's. 2-5-7-9), set	1	1
Clubs, wood (No's. 1-3), set	1	1
Covers, wood club, set	1	1
Flags, hole markers	Based upon facilities	
Mats, cocoa or rubber	1	1
Nets, driving	Based upon facilities	
Putters	1	1
Tees		

Activity	I	P
GYMNASTICS		
Bars, horizontal	1	10
Bars, parallel, offset	1	20
Bars, parallel, regular	1	10
Beams, balance	1	30
Belts, safety	1	10
Boards, beat	1	10
Boards, [illegible]ring	1	10
Books, rule	6	
Boxes, vaulting	1	10
Bucks	1	10
Horses, long	1	20
Horses, side	1	20
Magnesium, carbonate	5 lbs.	
Mats, apparatus	Based upon equipment	
Mats, tumbling	1	5
Nets, canvas portable	1	20
Rings, flying, set	1	
Ropes, climbing	1	5
Trampolines	1	20

Activity	I	P
HOCKEY, FIELD		
Balls, official	1	11
Balls, practice	1	1
Books, rule	1	15
Guards, goal	1	11
Guards, shin, pair	1	1
Shoes, pair	1	1
Sticks	1	1
PADDLE BALL		
Balls	1	2
Paddles	1	1
SOCCER		
Balls	1	5
Flags, corner	Based upon facilities	
Goals	Based upon facilities	
Guards, shin, pair	1	1
Hose, practice, pair	1	1
Nets	Based upon facilities	

Activity	I	P
SOFTBALL		
Backstops, portable	1	20
Bags, bat	1	
Balls	1	2
Bases, set	1	20
Bats	1	3
Books, rule	6	
Gloves, fielder's	7	20
Indicators, umpire	1	20
Masks	1	20
Mitts, 1st baseman	1	10
Mitts, catcher's	1	20
Plates, home	Based upon facilities	
Plates, pitcher	Based upon facilities	
Protectors, body, boys'	1	20
Protectors, body, girls'	1	20
Tees, batting	1	10

Activity	I	P
TENNIS		
Balls	1	1
Books, rule	6	
Presses, racket	1	1
Rackets	1	1
TENNIS, TABLE		
Balls	1	2
Book, rule	3	
Nets	Based upon facilities	
Paddles	1	1
Posts, net	Based upon facilities	
Tables	Based upon facilities	

Activity	I	P
TRACK and FIELD		
Bars, cross, metal	1 per pit	
Batons	1	4
Blocks, starting	1	4
Boards, take-off	Based upon facilities	
Boards, toe	Based upon facilities	
Books, rule	6	
Box, vaulting	Based upon facilities	
Cartridges, for starting gun		
Circles, discus	1	15
Circles, hammer		
Circles, shot	1	10
Discus	1	10
Guns, starting	1/class	
Hurdles, adjustable	10/lane	
Markers, shot-discus-javelin	Based upon facilities	
Poles, vaulting	1	10
Shots	1	10
Standards, finish line	Based upon facilities	
Standards, jump	Based upon facilities	
Standards, vault	Based upon facilities	
Yarn, finish line	Based upon facilities	

Activity	I	P
VOLLEYBALL		
Balls	1	6
Books, rule	6	
Cables, net	Based on facilities	
Nets	Based on facilities	
Reels	Based on facilities	
Scoring devices	Based on facilities	
Standards	Based on facilities	

Activity	I	P
WEIGHT TRAINING		
Barbells, set	1	4
Bar, horizontal	2	
Benches, supine press	2	2
Books, rule	2	
Boots, pair	1	4
Developers, knee, pair	1	4
Developers, wrist, pair	1	4
Dumbbells, set	1	4
Head harness	1	4
Mats, 5' x 10'	5	
Machines, abdominal	1	10
Machines, latissimus	1	10
Mirrors	3	
Platforms, wooden	1	
Racks, heavy barbell	Based upon facilities	
Racks, storage	1	
Weights, wall	3	
Wrenches	1/barbell set	

2. It is recommended that the health and physical education program (now undergoing revision) be designed to avoid excessive gaps and overlaps.

   a. Students who have participated in the exploratory physical education program at the junior high school might be offered the option of electing minicourses beginning in Grade 10. It is suggested that each minicourse offered should be concerned with skill development as well as with the attainment or maintenance of optimal physical fitness levels.

   b. Perhaps an assessment needs to be made of the importance of devoting approximately six weeks of study to first aid at the eighth grade and another six weeks at the tenth grade.

   It is further suggested that the health course of study be directed toward the conceptual approach to health education. Learning experiences could be presented on a cycle plan to help the students gradually develop or discover the concepts that will mediate their health attitudes and practices.

3. It is suggested that a storage area equivalent to 250 to 300 square feet per teaching station be provided. The gymnasium size should allow a minimum of 125 square feet of useable space for each participant during peak loads. Apparatus, mats, and other equipment should be stored when not in use.

4. Consideration should be given to providing a more ideal classroom for teaching health. The room should be adequate for small-group, large-group, programmed, and technical learning activities. It should have adequate supplies, laboratory equipment, and instructional materials.

Part 9
Pupil Personnel Services

This portion of the report concerns the scope, sequence, and implementation of those programs whose primary function is the enchancement of the students' mental health and optimal development of learning potential.

Data for this report were collected through interviews with the central office, elementary and secondary school principals, school psychologists, speech and hearing specialists, guidance counselors, and teachers. Reports from a recent evaluation conducted by the Ohio Department of Education, Guidance Division, were included in interviews with secondary school personnel.

The program areas evaluated were: (1) psychological services, (2) preventive mental health education, (3) counseling and guidance services, (4) school discipline, (5) group testing, and (6) school health, speech, and hearing services.

The staff consisted of two psychologists, a special teacher-consultant who worked as liaison between the learning disability teachers and the parents, and a speech therapist assigned to a special speech and language disability program. These persons operated under the direction of the pupil personnel services director to provide diagnostic and supportive services to the special education program.

Students referred by their teacher as possibly learning disabled were observed in the classroom by the school psychologist to determine whether or not individual testing should be initiated for a more extensive diagnosis of the problem. If the diagnosis indicated special training or help, the child might be placed in either the Intensified Instruction or the Developmental

Disability program.

The Intensified Instruction (I.I.) program was designed to meet specific learning needs of learning disabled students. There were five lower elementary classes, one upper elementary class, and one junior high school class in this program. One elementary class was developed to deal specifically with language skills deficiencies. A speech therapist worked with the regular learning disability teacher to remediate specific speech difficulties. This special class was referred to as the IDOLS program (Intensive Development of Language Skills). The student typically moves from the IDOLS to the I.I. program, then back into the regular classroom.

The learning disability teachers, school psychologists, and regular classroom teachers cooperate to help students return to their regular programs.

Students diagnosed as educably mentally retarded were placed in a Development Disability class. There was one D.D. class at each of the elementary, junior high, and senior high school levels. The senior high school program had the added assistance of a part-time work-study coordinator.

The resources utilized by the school psychologists for additional assistance in diagnosis or special family counseling included neuro-

logical testing at Metropolitan General Hospital and the Southwestern Community Child Guidance and Counseling Center.

As reported by administrators, with the additional school psychologist added to the staff in the 1974-1975 school year, responses to referrels had been reduced considerably. Testing usually began within two weeks of referral. Reports were given orally to the administrator.

The Survey Team believes the psychological services available to the children were considerably above average. The program is commended.

Young children having special difficulties in learning via the regular academic program had a very good chance of receiving special diagnosis and remediation. The liaison program between the school and the parents served as a model not only for special education but general educational activities as well.

Primary Prevention

Students who exhibited grossly abnormal behavior that indicated severe emotional handicaps were referred for counseling or therapy through the psychological services personnel. The program appeared to have ample support from the various community resources.

The services described above were primarily corrective. Deficiencies were diagnozed and treatment recommended. For example, a child with visual difficulties would be identified, tested, and the problem corrected through whatever medical and/or educational activities were needed.

Current literature reveals a growing emphasis upon preventive as well as corrective action programs in the schools. Primary prevention in the field of student mental health includes those services provided to teachers and students in the regular classrooms to help students develop their own resources to avoid unnecessary problems, to handle problems as they occur, and to develop increasingly the human potential of the individual. It also includes increasing staff awareness and skill that they might give early attention to minor problems. The more grossly abnormal forms of behavior might never appear as students and teachers learn how to deal with problems while they are still manageable, making later treatment or therapy unnecessary.

There was some evidence of attention to primary prevention of social and emotional problems through positive mental health education within the Strongsville schools, but indications of full commitment to such programs were lacking.

At the elementary level, a special pilot project for gifted students, entitled ASCEND, has been implemented. This program included gifted student participation in special activities in the areas of communication processes, divergent thinking, and affective education. Participants learned effective ways to increase understanding of self and others. Regular classroom students had not yet had the opportunity to benefit from some of the strategies derived from this program.

In at least one elementary school there was evidence of a growing involvement in developing educational strategies to enhance student self

concept. This had not been integrated into a total affective education program however.

At the secondary level, there was evidence of some classes having learned some aspects of positive mental health, self understanding and values development. In addition, students had opportunity to learn related concepts in health education and in the social studies.

Recommendations and Suggestions for Psychological Services and Primary Prevention Efforts.

1. It is recommended that an active, preventive mental health education program be implemented in the schools. Current corrective efforts in the psychological services program have been exemplary. Elementary school administrators are encouraged to develop a closer relationship between the teachers and the school psychologists in establishing positive, preventive programs that deal with the emotional as well as intellectual development of the pupil. Such collaboration could provide an improved atmosphere for the emotional, social, and intellectual growth for each child.

   a. It is suggested that additional training for psychological services and counseling and guidance staff to serve as resources for and program collaborators with the regular teaching staff be provided.

   b. It is suggested that ongoing administrator and teacher training programs to increase teacher and administrator understanding and skill in application of knowledge from the behavioral sciences be provided.

   c. It is suggested that development and implementation of affective educational programs for students, such as the ERCA program of Education in Human Behavior and Potential, be initiated.

2. It is recommended that a Positive Mental Health Advisory Committee composed of administrators, psychological and counseling personnel, and community mental health personnel be established to provide

support and stimulation toward primary prevention programs. The committee could also provide leadership in primary prevention efforts directed toward specific student problems, such as drug and alcohol abuse and aggressive, hostile, violent behavior.

3. It is recommended that the psychological staff develop a closer relationship with the teaching staff by providing ideas, training, and strategies to help teachers deal with student problems.

4. It is recommended that closer integration of psychological services and the counseling and guidance services be facilitated as quickly as possible for the benefit of both.

5. It is recommended that an additional secretary be secured for the psychological services department in order to decrease the response time of testing and written reports to administrators and teachers. Dictation equipment could reduce the preparation time for reports.

6. It is recommended that the early identification and screening program currently being conducted at kindergarten be continued. The use of paraprofessional and volunteer help should also be continued. Teacher training efforts recently initiated should be a part of a positive prevention program.

7. It is recommended that the schools designate an elementary guidance counselor to help provide the leadership for the primary prevention efforts described above. A first step in this direction could be the submission of a Title III Implementation Group for Elementary Guidance, since there is currently no state reimbursement for elementary guidance personnel.

Counseling and Guidance and Group Testing

As in most school systems, counseling and guidance at the secondary level is primarily an administrative responsibility. In Strongsville there was little evidence of a coordinated guidance program. Instead, there were three separate programs in the three secondary schools. There have been few, and generally ineffective, efforts at coordination.

At Albion Junior High School; there was one counselor to serve 576 students. In addition to counseling and guidance, the counselor was responsible for a number of quasi-administrative duties, in particular, the development of the master schedule and related tasks. It is doubtful that such heavy involvement in administrative tasks can be maintained along with responsibility for individual and group counseling and guidance. An additional counselor was hired to provide for increased student accessibility; however, the relegaton of master scheduling to a counselor is a questionable, though common, practice.

The counseling and guidance offices were removed from the administrative suite. This may help students perceive the counselor as a source of help for a variety of problems.

At Center School, there were two counselors for 660 students. Ohio state guidelines recommend one full-time counselor for every 300 pupils in the secondary schools. Although the recommended ratio has been exceeded, counselors appeared to be providing adequately the needed counseling and guidance services to the students.

The administrators in both junior high schools expressed support for the objectives of the counseling and guidance programs.
There was some evidence of support in one of the schools for a positive prevention program as described earlier.

At the high school, there were three counselors and a vocational specialist serving a student population of 1,150. All four staff members

had numerous quasi-administrative responsibilities, with scheduling occupying an inordinate amount of counselor time. As a result, they are often not available to deal adequately with students' counseling needs.

Although current administrative theory places the counseling and guidance program as a responsibility of the principal, the use of the school counselor for too many managerial tasks can become dysfunctional. Concerned mental health professionals are seeking ways to help counseling and guidance staffs to maintain job responsibilities that are closely related to their training. Many high school students do not identify counselors as sources of help. One reason is because of their inaccessibility that results from extensive involvement in quasi-administrative tasks. A second reason is because students identify counselors with serving the needs of school administration rather than student needs

With the extensive involvement of the vocational counselor with the supervisor at the vocational school, the actual student/counselor ratio is not within the recommended 1:300.

The limited counselor efforts toward group guidance activities in cooperation with a few teachers have been random and infrequent. This might be because of insufficient counselor time.

Recommendations and Suggestions for the Counseling and Guidance and Group Testing Program

1. It is recommended that a concentrated effort be initiated to develop a comprehensive, coordinated guidance program for elementary through high school, offering both preventive and corrective programs.

2. It is suggested that counselor work time be explored before and after the regular school year to provide for the development of a written, coordinated program with cross-school involvement. Contrary to the state recommendation, the counselor/student ratio is not adequate when the responsibilities of the vocational specialist are considered.

3. It is recommended that a Director of Guidance be employed at the high school. This person could serve as chairperson of the high school guidance department to assist in the process of coordinating the development of a more cohesive, unified counseling and guidance program. This person could also provide leadership in redirecting quasi-administrative tasks from the guidance department. This director should serve a portion of his or her time in the regular counseling function and in the development of the group guidance program that utilizes the regular classroom teacher as a part of the guidance process.

4. It is recommended that provision be made for increased teacher-counselor interaction in both problematic (particular student) and programmatic planning. Counselors and psychological services personnel could collaborate to provide inservice and follow-up activity for teachers. In order to integrate more behavioral science into existing curricula, counselors should meet regularly with curriculum area departments. Relationships between counseling and teaching staffs are not negative, simply inadequate, as noted in the recent state department evaluation.

5. It is recommended that the counseling and guidance offices be moved near the new resource center, where several positive consequences could result. The counselors would be less identified with the administration, therefore open to a broader range of students needing counseling services, and arrangements could be made with the resource center to provide career development and vocational information materials.

6. It is recommended that at all schools, counselors, and other mental health resources personnel provide for teacher training and student education to increase teacher accessibility to the student. For example, at one school, 74 percent of the students surveyed responded

"no" to the question "Has any teacher helped you individually very much this year outside of class time."

7. It is recommended that more group guidance activities be conducted.

8. It is recommended that at the high school, the counselor, psychological services staff, and administrators work together to:

   a. Review and clarify counselor responsibility for the independent study and I.C.L.E. program. It is recommended that counselors not be given responsibility for work program or independent study supervision.
   b. Review, clarify, and, if necessary, revise acceleration policy and procedures.

9. It is recommended that students Grades 8 and 10 be given a personal-problem check-list or some similar measure to identify specific problem areas and to cue counselors to students who have special problems. The testing program in Strongsville is extensive and should provide data to assist teachers in responding to specific student need: however, there were indications that the teaching staff made little if any constructive use of the results. There appeared to be a strong need for psychological service and counselor interaction and training to help the teaching staff utilize test results constructively. Too often tests were used only to categorize students for tracking rather than for analysis of individual growth needs.

School Discipline

At the elementary school level, the teacher remained the single most important force in maintaining student control and an atmosphere conducive to positive student growth. In general, when a student excessively disturbs class functions, teachers are expected to take steps to correct the situation. If the problem persists, teachers are responsible for contacting the parents and utlizing whatever resources are needed: e.g., psychological services. The administrator may be called upon for support and assistance as the teacher works with the problem.

The above policy was usually followed at the elementary school, with some exceptions. Some teachers would utilize the principal as the major "punisher," and attempt to maintain order through principal punishment or threat of it. In most cases such as this, the principal attempted to work with the teacher to shift his or her orientation to a more preventive approach.

At the secondary level, an assistant principal was the primary disciplinarian for the total school. Some teachers accepted their responsibility for preventive action, while others used detention and continued to refer students to the assistant principal.

At one junior high school, the counselor worked with the students to help them deal more effectively with their problems, but primary disciplinary responsibility was with the administrator. This process avoided counselor identification with the discipline process itself.

At the high school level, students received detentions and had to spend one to two hour sessions from 10:00 to 12:00 noon on Saturdays. If a student missed any detention assignment, the punishment was automatically doubled, increasing in geometric proportions. Such punishments escalate quickly and generally fail to provide the desired change in behavior.

At the high school an in-school suspension program was instituted to provide a means for trained personnel to work further with the suspended student. In practice, the in-school suspension program was singularly premature, resembling and having all of the adverse effects of a medieval

prison system. Little was done to identify and work on the causes of the behavior leading to suspension. Students with less serious offenses were exposed to increasingly negative models in a dehumanizing environment.

The concept of keeping problem students in school to help them to deal more effectively with the causes underlying their negative behavior is good; the current in-school suspension program is deplorable.

Currently students are automatically suspended for either fighting or smoking on school grounds as follows:

First offense: 3 days

Second offense: 5 days

Third offense: 10 days

Fourth offense: Expulsion

There was evidence that suspensions were used excessively for student control. Inefficient attention was given to the causes of the problem. All efforts possible need to be utilized to help the student adjust his or her behavior before suspensions are involved.

Recommendations and Suggestions for the School Discipline Program

1. It is recommended that the current in-school supervision program be terminated immediately. Planning should begin immediately for new, more positive approaches to dealing with problems of school suspension and the behaviors leading to it.

2. It is recommended that the administrative staff reassess its excessively premature approach to the problems of student smoking and deal with the problem on a realistic basis.

Nursing and School Health

Nursing services were provided as a part of the county program. One full-time nurse served the elementary schools, normally spending one-half a day at each school. One nurse spent half-time in the secondary schools, dividing time between the two junior high schools and the senior high schools.

Visual examinations were held in Grades 1-3, 5,7, and 9 and for new students. T.B. tests were given every three years, rotated as a part of the county health program.

The school secretary supervised the clinic area and attended minor problems in the absence of the regular nurse. This operation appeared to be working satisfactorily, with perhaps one exception. It is recommended that improved arrangements be made for supervision of the clinic in the absence of the school nurse. This has not became a major problem, but some attention needs to be given to it.

Part 10

Reading and the Language Arts

The philosophy and objectives for the elementary reading and language arts program were clear, well-written, and broadly stated. They were not written in behavioral terms, making measurement of pupil progress difficult in terms of the objectives.

The major strands of the K-3 program were reading, writing, language, speaking, listening, and mass media. The kindergarten level was concerned primarily with developing readiness. Separate strand identification at this level was difficult since all strands are learned together to provide the skills necessary to enter Grade 1. Highest priority was given to developing skill in reading. Second priority was in developing writing skills. The balance of the language arts content was designed to support instruction in reading and writing.

Writing was introduced at Grade 1 and spelling began in Grade 3. Pupils were expected to be able to synthesize their skills to achieve fluency in reading. Skill development was designed to be sequential, with reinforcement and refinement at successive grade levels. Children were expected to be able to express themselves according to their own ability level.

The language arts program in Grades 4-6 represented a transition from the naivete of the primary to a more sophisticated work of the secondary grades. The major areas of the upper elementary sequence were reading, speaking, language, writing, and media.

Areas of study were not repeated at subsequent levels in order to minimize the volume of content given. Vocabulary development was to be sequential. Reading involved a detailed list of elements to prepare pupils

to read fluently and comprehensively. Reference skills were introduced at Grade 4 and the assistance of the school librarian was encouraged.

The speaking skills moved from extemporaneous speaking in the primary grades to a more factually-based and correct grammatical presentation in the intermediate grades. The language strand embodied progress toward correct oral and written expression. Writing was learned as an attempt to move from the simple to the complex expression of individual desires to communicate in formal and informal styles. The media strand represented an attempt to introduce modern audiovisual experiences into the classroom setting.

The Survey Team interviewed forty-three elementary teachers from the Strongsville schools, including eighteen primary and eighteen upper elementary teachers. This sample included three randomly selected teachers from each elementary school. Since there were only six kindergarten teachers and one reading specialist in the district, these persons were not involved in the random selection. However, each one was part of the survey selection. Principals were interviewed informally.

Data were collected through teacher observations, interviews, and questionnaires. The evaluation forms for this part of the report were developed by the Survey Team. A sample of the evaluation forms is shown in Appendix B. Readers interested in reviewing the other forms used are invited to contact the Director of the Reading Department at ERCA. Principals' responses to the questionnaires were not included in the data tabulation,

but were considered in the preparation of the report. Special consideration was given to the schedule of observations so that the Survey Team would be able to visit classes during a regular reading and/or language arts period. Each visit lasted approximately one hour. In sum, data were gathered from kindergarten teachers, primary teachers, intermediate, or upper elementary teachers, and the reading specialist.

The Survey Team also talked with administrators, librarians, teacher aids, student teachers, special teachers, and other classroom teachers. No effort was made to control the sample to include only those teachers of the reading and language arts area.

The core of the language arts program was based on two basal series: (1) The Houghton Mifflin Readers (Houghton Mifflin, 1971) and (2) Patterns of Language (American Book Co., 1974). Each series provided for sequential development of reading and language arts skills for Grades K-6. A spelling program, Power to Spell (Houghton Mifflin, 1971), was used only in Grades 4-6. There was no developmental handwriting program in any of the elementary grades.

Teacher and student materials, both basal and supplementary, were available at all levels in variety and abundance. In some instances, additional materials were purchased with special funds and housed for greatest use by all teachers and students within a building. Teachers

might also request materials on a loan basis from the Instructional Resource Center, at Brookpark Memorial School, Berea, Ohio.

Every elementary school had a library. Each library was staffed by an aide. One librarian served all elementary schools and gave assistance to the library aides. Opportunities were provided in the libraries for children to hear stories and to select books of interest with the guidance of the library aide.

Sufficient Educational equipment was also available in each classroom. Unit level special equipment was in a storage area accessible to all teachers on a sign-out basis. This equipment was used in a variety of ways, according to the instructional purpose.

"Teacher Resource Centers" or "Individualized Study Centers" housed special kinds of equipment and materials to be used as reference materials on a short-term basis for diagnostic purposes, or for any other special instructional needs.

As a part of the Kindergarten Screening Program, all kindergarten children were assessed in skill development in prereading and language arts. The Perceptual Development Program, developed by Strongsville administrators and kindergarten teachers, provided for continuous development and reassessment of perceptual skills.

Several instructional programs were provided in individual schools. Students were involved in learning experiences as a part of (1) "activity

centers", (2) "study centers", (3) programs in which they learned reading at one grade level, but were grouped across grade levels for other subject areas, (4) an instructional program departmentalized so that one teacher is a teacher of reading, and another is a teacher of language arts, etc., and (5) programs in which subject areas were learned across grade levels in units — children of Grades 4, 5, and 6 learning skills, where needed, at the same instructional level. Observations of the various instructional programs indicated, however, that the similarities of learning procedures of various programs far outweighed the differences.

Special classes and programs were available for children with learning difficulties in reading and language arts; for example, classes for Intensive Instruction were conducted on an individualized basis.

Classroom grouping for instructional purposes depended upon the organization of the school. In most instances, whether the organization was by unit, block, open-pod, or self-contained, the three traditional instructional groups were prevalent. The one exception was in classrooms organized for Individualized Instruction in the upper elementary grades. These classes were organized according to individual agreements between the teacher and the pupils.

Children participated in field trips about once a year. The correlation of this activity with the language arts was not clearly defined.

The evaluation procedures used to assess student progress included the standardized SRA Achievement Test and were given district-wide. Elementary students were evaluated in Grades 2, 4, and 6. A Reading Specialist was available for diagnostic evaluations on an individual basis when requested by the classroom teacher. Corrective and/or remedial procedures were recommended by the Reading Specialist and used by the classroom teacher.

The instructional program was organized by grade level and by subject area. Little variety or diversity was seen in the kind of subject areas to be learned. This may be because of district-wide adoption of curriculum materials. The scope and sequence charts for the reading and language arts areas were a part of each basal program. The outlined scope and sequence within each subject area agreed with the goals and objectives of the particular program; however, where there was some diversity in the learning approach, e.g., individualized reading, a scope and sequence of materials and skills was not included.

Both programs, Patterns of Language and The Houghton Mifflin Readers, clearly identified a body of skills and knowledge to be mastered. In addition, the programs were outlined for each and every grade level teacher's guide. They were also divided into levels of specificity. The Houghton Mifflin Readers program included four parts: (1) Decoding Skills, (2) Comprehension Skills, (3) Reference and Study Skills, and (4) Literary Skills. Patterns of Language had nine strands: (1) Patterns of Language, (2) Literature, (3) Creative Thinking, (4) Listening, (5) Written

and Oral Composition, (6) Modern Grammar, (7) This History and Nature of Language, (8) Study Skills, and (9) Usage.

The identified skills were "keyed" in the scope and sequence to (1) level of instruction and reinforcement, and (2) pages of instructional and practice materials. Both skills and materials were cross-referenced where applicable.

The program materials provided for various and appropriate learning experiences. The immense amount of instructional information allowed for considerable flexibility. Selection of particular content and skills for emphasis could be determined by and based upon the learning needs for each student; however, most children utilized the materials as if they were fixed and inflexible page-by-page prescriptions-in-advance.

Recommendations and Suggestions for the Elementary Reading and Language Arts Program.

1. It is recommended that an in-service education program be provided for all teachers to examine thoroughly and study in-depth all components and supplemental materials adopted for use in conjunction with The Houghton Mifflin Readers. It is suggested that teachers be involved in a careful study of Patterns of Language to stress the importance of the goals and objectives of the program. New editions of published reading and language arts programs are adopted for use district-wide; however, these programs were not being used effectively at all grade levels, K-6. Many teachers stated that Patterns of Language was inappropriate for learning the language arts skills. Observation indicated that many children were using the program on a limited basis, or not at all.

2. It is recommended that programs and procedures for learning how to spell be studied for the purpose of including spelling in the primary grades. It is suggested that Power to Spell (Houghton Mifflin, 1971), a part of the upper elementary instructional program be included in the instructional program at the primary level.

3. It is recommended that a handwriting program for skill development be a part of the K-6 program. A careful evaluation should be made of the handwriting strand of Patterns of Language and a study of the need and feasibility of a separate handwriting program adoption. It is extremely important that children have learning opportunities that (1) reflect consideration for their stages of development, (2) are provided by professionals with a thorough knowledge of their subject matter, and (3) are provided by a staff that understands the kinds of learning potential that can be realized through flexible use of the materials.

4. It is recommended that provision be made for greater pupil involvement with books and with the selection of quality of literature of different types. Frequent opportunities should be made available for children to use literary materials in a variety of interesting ways and to hear quality literature presented orally. It is further recommended that classroom libraries be provided with an adequate supply of books for daily pupil use. These books should be of different interest and ability levels. The Connecticut Association for Reading Research (1970) recommends a minimum of one hundred books per classroom.* Some of these books may be selected to supplement existing learning experiences and to meet individual student needs.

5. It is recommended that a careful and thorough review be made of the primary grades evaluation procedures. Detailed information about all standardized tests used in these grades in Strongsville should be made available to all elementary teachers. Several evaluative measures were identified to assess the reading and language arts achievement of elementary pupils. The only measure known or referred by all teachers, however, was the SRA Achievement Tests, administered in Grades 2, 4, and 6.

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* Connecticut Association for Reading Research, Criteria for Assessing School Reading Programs (The Association, 1970), pg. 22.

6. It is recommended that all elementary children have the benefits of the knowledge and skills of the Reading Specialist and other language arts specialists. It is suggested that full utilization of these persons be made to coordinate the reading and language arts programs. These persons could provide technical assistance to teachers on a follow-up basis to testing, collaborate on evaluation procedures, and offer suggestions for the planning, conduct, and coordination of teacher in-service programs.

7. It is recommended that additional professional journals, magazines, and periodicals be made available to the staff through the building professional libraries.

Some Suggested Sources:

Journals

1. The Reading Teacher, published by International Reading Association, 800 Barksdale Road, Newark, Delaware 19711. Annual subscription $15.00; single copy $2.00.

2. Elementary English, published by the National Council of Teachers of English. Membership fee, including subscription, $15.00 per year. National Council of Teachers of English, 1111 Kenyon Road, Urbana, Illinois 61801.

3. Elementary School Journal, published by The Elementary School Journal, University of Chicago Press, 5801 Ellis Avenue, Chicago, Illinois 60637. Subscription Rates: 1 year $8.00; 2 years $15.00; 3 years $22.00.

4. Learning, published by Learning, 1255 Portland Place, Boulder, Colorado 80302. Rates: $1.25 per copy; $10.00 per year; $18.00 for two years.

5. Cricket, published by Open Court Publishing Company, 1058 Eighth Street, La Salle, Illinois 61301. Annual subscription $10.00.

Books

Aukerman, Robert C. Some Persistent Questions on Beginning Reading. International Reading Association, 1972.

Barrett, Thomas C. Views on Elementary Reading Instruction. Newark, Delaware: International Reading Association, 1973.

Dunne, Hope W. The Art of Teaching Reading: A Language and Self-Concept Approach. Columbus, Ohio: Charles E. Merrill Publishing Company, 1972.

Goodman, Kenneth S. Reading Process and Program. Urbana, Illinois: National Council of Teachers of English, 1970.

Henry, George H. Teaching Reading as Concept Development: emphasis on effective thinking. Newark, Delaware: International Reading Association, 1974.

Labuda, Michael. Creative Reading for Gifted Learners: a design for excellence. Newark, Delaware: International Reading Association, 1974.

Reeves, Ruth. The Teaching of Reading in Our Schools. New York: The Macmillan Company, 1966.

Smith, Helen K. Meeting Individual Needs in Reading. Newark, Delaware: International Reading Association, 1971.

Walden, James. Oral Language and Reading. Champaign, Illinois: National Council of Teachers of English, 1969.

This is by no means an exhaustive list, just a beginning of helpful resources.

And, of course, we feel compelled to suggest some more enjoyable reading for teachers and pupils — literature for children. The suggested titles are recommended to be shared, read-aloud by teachers to students. One sure way to motivate and encourage READING is by example, especially when the person is sharing interesting books in an enthusiastic way. This person becomes a model; the characters come alive — so does the READING, and it's possible that once alive it lives for a LIFETIME. It's truly enjoyable.

Children's Book Titles

K-1

Bodecker, N. M. It's Raining, Said John Twaining. Atheneum, 1974.
Hogrogian, Nonny. One Fine Day. Macmillan, 1972.
Kraus, Robert. Milton the Early Riser. Windmill, 1972.
Raskin, Ellen. Who, Said Sue, Said Whoo? Atheneum, 1973.
Wells, Rosemary. Noisy Nora. Dial, 1973.

1-2

Godden, Rumer. The Old Woman Who Lived in a Vinegar Bottle. Viking, 1972.
Keats, Ezra Jack. Goggles!, Macmillan, 1970.
Marshall, James. George and Martha. Houghton, 1973.
Mosel, Arlene. The Funny Little Woman. Dutton, 1973.
Ryan, Cheli Duran. Hildilid's Night. Macmillan, 1972.

2-3

Anderson, Lonzo. Izzard. Scribner, 1973.
Duvoisin, Roger. Jasmine. Knopf, 1973.
Lobel, Arnold. Frog and Toad Are Friends. Harper, 1970.
Steig, William. Sylvester and the Magic Pebble. Windmill/Simon, 1970.
Zemach, Harve and Margot. Duffy and the Devil. Farrar, 1973.

4-5

Alexander, Lloyd. The Cat Who Wished to Be a Man. Dutton, 1973.
Miles, Miska. Annie and the Old One. Atlantic-Little, 1971.
Rodgers, Mary. Freaky Friday. Harper, 1972.
Selden, George. The Genie of Sutton Place. Farrar, 1973.
Sleator, William. Blackbriar. Dutton, 1972.

5-6

Alexander, Lloyd. The Marvelous Misadventures of Sebastian. Dutton, 1970.
Byars, Betsy. The House of Wings. Viking, 1972.
O'Brien, Robert C. Mrs. Frisby and the Rats of NIMH. Atheneum, 1971.
O'Dell, Scott. Sing Down the Moon. Houghton, 1971.
Taylor, Theodore. The Cay. Doubleday, 1970.

Part 11

Science

Published goals, aims, or objectives for the K-12 science program were not available to the Survey Team. A review of the philosophy and objectives for the K-6 sequence revealed an emphasis on scientific "processes" to be attained through a framework of broad areas of study.

There was no evidence of a planned Kindergarten program. Classroom discussion in the primary grades seemed dependent on text contents and on some visual materials. The children had little opportunity to learn science using concrete materials, or to participate in science field trips. This may have been because of the limited availability of materials. Most primary classrooms had little more than running water. Some had aquariums and other science exhibits.

The program in Grades 4-6 consisted mostly of reading, discussion, and visual aids. Student projects tended to be library-centered activities. Although there was considerable use of physical objects for demonstration purposes, there were few field trips or visits to the school system's planetarium. No real laboratory facilities were available other than running water.

All students were required to follow the same science courses through Grade 9. In that grade, students were permitted to choose one of three one-year courses. Beginning in Grade 10, students could elect one or more of three different one-year courses, four semester-long courses, or eleven quarter-long courses. Most of the courses offered in the lower high

school grades were either general science or of a single discipline. Only one minicourse at the high school integrated two science disciplines. The Time, Space, Matter course offered in grade 7 seemed more integrated than any other course available. Except for the high school minicourses, which were electives, all secondary science courses had prerequisites that required tracking.

Learning activities in the secondary grades consisted mostly of listening to lectures, reading, discussing, using visual aids, and participating in laboratory exercises. There were field trips or involvement in science projects. Some students were fortunate enough to be assigned to classes where additional and more varied science learning activities were provided.

The laboratory facilities in the secondary grades were adequate for the courses offered. The facilities at the Center Junior High School were not up to the standards of those in the other secondary schools.

In general, scope and sequence were determined by the texts used. Students lacked the advantages of a vertically articulated program. The program also lacked correlation with other instructional program areas. In some cases relationships were provided, as in the Mathematics for Science course in the high school. There was no formal grouping procedure in the science program, except in isolated instances.

Recommendations and Suggestions for the Science Program

1. It is recommended that the K-12 Science Curriculum Committee be continued. It is suggested that this committee explore new ways to provide a K-12 science program that is correlated, coordinated, articulated, and integrated with other areas of the curriculum.

2. It is recommended that a wider variety of student learning materials be provided at all grade levels, especially in Grades K-3. In all grades, the primary learning materials were books. Text content seemed adequate, but the reading level was not appropirate for many students. It is suggested that students be given opportunities to use many of the free and inexpensive science materials available from companies of scientific products.

3. It is recommended that students have increased opportunities to learn science outside of the school building. Outdoor areas, such as the proposed "Land Lab," and other areas adjacent to the school buildings would be appropriate. Consideration should also be given to the use of community resources, such as resident scientists and science-related persons.

4. It is recommended that professional journals, such as Science and Children and The Science Teacher, be made available in each school library or staff room.

5. It is recommended that consideration be given to the establishment of a regular program of professional growth in science education. This could be an activity of the Science Curriculum Committee as in recommendation 1, above. The following topics of study are suggested:

   a. Review of research findings in child growth and development.
   b. The recreative use of student learning materials in science.
   c. Individualized science learning activities. Most learning activities seemed to be geared to "average" students. The high school minicourses were an exception in that they did appear to provide for some individualization.

6. It is recommended that additional laboratory facilities be provided at the elementary level. Students need a program that is experientially oriented, with numerous "hands on " approaches. It is further recommended that more extensive use of the planetarium be made. Consideration should be given to the expansion of the science facilities at the Center Junior High School.

Part 12
Social Studies

Elementary

The social studies program in the Strongsville City Schools is based on the philosophy that social studies involves the study of man's relationship to man and his environment. "We believe we have the responsibility to help each individual grow in attitudes, skills, and understanding so that he can live effectively in our democratic society..."

The written goals and objectives for the social studies program were clear and comprehensive. They were not written in behavioral terms, making effective evaluation difficult. The contents of the program provided a detailed scope and sequence. The described program is multidisciplinary and includes political science, economics, philosophy-religion-psychology, history, sociology-anthropology, and geography. For each discipline, several major concepts were identified, including government, law, politics, and leadership. Additional concepts and skill areas were included for each grade level, K-6. As written, the program espouses a learning approach that is conceptual, cumulative, and sequential. Learning activities were designed to broaden and deepen understanding at each grade level, except for a few concepts that were not introduced in the primary grades.

The Survey Team interviewed 35 teachers, administrators, and librarians in each of the elementary schools. Classroom observations including more that 350 children, and a careful review of the published

materials were conducted to gain additional evaluative data. Three and one-half days were spent in the district. The only major limitation of this portion of the study was the amount of time spent in the district and the number of persons in the sample.

In the 1972-1973 school year, the district adopted the Contemporary Social Science Curriculum (CSSC), published by Silver-Burdett in 1972. This program consisted of the following texts and teacher guides:

The Earth, Home of People (Readiness Level: K-1)

Families and Their Needs (Level 1)

Communities and Their Needs (Level 2)

People Use the Earth (Level 3)

This is Man (Level 4)

Man and Society (Level 5)

Man and Change (Level 6)

Except for a few Kindergarten and Grade 1 classes, all other K-6 pupils had access to the texts appropriate for their level. These books were used for most of the school year. Supplementary materials were also used; however, these materials were not as readily available as the texts. These materials included the Weekly Reader Map and Globe Skills booklets, Science Research Associates' Map and Globe Skills Kits, a few copies of some other basal text series such as Holt's and Benefic's texts from previous adoptions and Laidlaw and Follett's 1954 text on

North American Indians. There were also a few posters and games. Reference works and library books in most social studies areas were adequate. No workbooks were used; instead, pupils used locally-made dittos or commercial reporductions of materials, such as those from the Milliken Company.

The text contents met adequately the "real world" criterion as recommended by the National Council for the Social Studies' Curriculum Guidelines (1971). Case studies were provided from around the world, and studied specific industries. In addition, topics such as pollution, resource depletion, urban congestion, technological unemployment, and social conflict helped the texts to meet this criterion.

The readability of the texts was at grade level. This is important when pupils are expected to read for content comprehension rather than at frustration levels.

A significant limitation of the program is its inconsistency. The district's published program outline provided for a conceptual approach to social studies learning. The CSSC provides for this approach only superficially. Further, while most of the concepts identified in the program outline were included at some point, the CSSC provides for this approach only superficially. They were neither cumulative nor sequential. For example, the CSSC scope and sequence

chart shows the following "Basic Concepts" for Levels 1-3:

Level 1 - - Families, shelter, food, clothing, United States.

Level 2 - - Community, change, transportation, communication, learning, and government.

Level 3 - - Natural resources, conservation, cities.

Each level contained concepts that were different from those of other levels. This limited sequential and cumulative learning called for in the district-published outline.

The equipment and facilities were adequate. Overhead filmstrips and projectors were readily available. There were also sufficient record players, television sets and tape recorders. "Listening posts," tape cassettes, and individual filmstrip viewers were not generally available. Audiovisual materials were limited. Some materials were out-dated and some did not correlate with the basal textbook program. The materials recommended by Silver Burdett, such as their own sound filmstrips and suggested additional resources, were not in evidence. The materials available were mostly filmstrips, plus a few records and transparencies. This was not enough to extend and enrich the conceptual development of children. There were no films available within the school system, and only or three classes were able to see films from the Cuyahoga County Library System. A number of classes were able to take advantage of the offerings of WVIZ, the local educational television

station broadcast on Channel 25. Maps and globes were generally available and were of good quality.

The learning activities were varied. They included reading, answering questions orally, writing answers to questions, viewing filmstrips, films, educational television, and transparencies; listening to lectures, stories, class discussions, and recordings; making art projects that correlate with social studies, preparing reports, doing classroom or library research, playing games, working with maps, globes and atlases, and taking field trips. Only a few field trips were mentioned, and only two or three community resources were indicated during the course of the sampling. In one class, pupils were given several options for activities during the social studies period.

Even though the list of learning activities was large, individual choices were limited and there was little balance among the various activities. For example, most activities consisted of reading, listening, and answering teacher questions. Pupils were expected to be on the same page of the text at the same time, regardless of their individual abilities.

Class discussions allowed opportunities for pupils to recall facts and to indicate comprehension. There were few classes in which pupils had opportunities to use skills of application, analysis, synthesis, and evaluation. These activities are very important in the implementation of the district's conceptually-oriented program. For some reasons unknown

to the Survey Team, these activities were practically nonexistent.

Grouping patterns varied. Pupils participated in large groups, class-size groups, small groups, and worked individually. Most groups were of the "homeroom" type and organized according to age-grade levels. There were a few instances of multiage grouping. No ability grouping was noted. Some pupils were grouped in self-contained classrooms. Others were in a departmentalized setting, and still others were in a "cooperative teaching" setting.

The evaluation procedures varied according to grade level. Some pupils had chapter or unit tests, or parts of them. These tests were reproduced from the basal social studies texts. During fall, pupils in Grades 4 and 6 took the Science Research Associates Assessment Survey Achievement Series (part of the Iowa Tests of Educational Development), of which social studies is a part. Interviews with teachers revealed that no significant educational decisions were based on pupils' scores on the social studies part, though the scores were used for grouping in other instructional program areas. It was not known whether or not the items on the achievement test had any correlation with the Strongsville social science program. The Silver Burdett tests that accompany the CSSC had not been purchased.

Reports of student progress to parents consisted of a "primary progress report" four times a year. This report evaluated students as

"S" (successful), or "U" (needs improvement) according to three evaluative criteria: (1) "participates in constructive discussions," (2) "understands and can apply materials used," and (3) "makes regular preparations as directed." The "Intermediate Report Card" for Grades 4-6 is also sent to parents four times each year. Pupils are given letter grades as A, B, C, D, F, or Incomplete, with no stated criteria for evaluation. The report card has other categories such as "Outstanding," "Satisfactory," and "Unsatisfactory," however, these were not evidently used in the social studies.

Recommendations and Suggestions for the Elementary Social Studies Program

1. It is recommended that the pupil learning activities be modified to parallel the conceptual learning approach that is described in the district's published social studies program. If this is not appropriate, the activities should be revised to follow the recommendations of the adopted text series.
2. It is recommended that additional opportunities be made available for pupils to apply, analyze, synthesize, and evaluate concepts as described in the district's published social studies program. It is further suggested that a reexamination of the program be made with particular attention given to the espoused approach of cumulative and sequential learning.

3. It is recommended that a coordinated effort be made to expand the availability of audiovisual equipment and materials. "Listening posts," tape cassettes, and individual filmstrip viewers would be appropriate additions.

4. It is recommended that pupils be allowed more opportunity to participate actively in their own learning, to be allowed more freedom to choose their own learning vehicles, and to be permitted greater variety and flexibility. For example, a concerted pupil effort to plan field trips and to use community resources would strengthen the program.

5. It is recommended that the evaluation procedures be reviewed in light of cirterion-referenced measurement.

6. It is recommended that pupils have more opportunities to (1) develop concepts from social science disciplines other than geography as listed in the published program outline, (2) to analyze values, and (3) to discuss current affairs. It is further suggested that consideration be given to modifying the current overemphasis on map and globe skills.

7. It is recommended that a coordinated effort be made to expand the quality and quantity of the time spent on social studies learning, expecially in Grades K-3.

8. It is recommended that the program objectives be written in

behavioral terms; i.e., instead of statements describing what the staff and school will provide, statements should identify what the pupils will be expected to do or know following completion of the program.

Secondary

The data for this section of the report were gathered by reading the published materials available in the Strongsville schools, by observing classrooms, and by talking with teachers, students, and administrators.

The secondary social studies program, as outlined by the district, was well conceived and comprehensive. The philosophy and the related goals and objectives were stated clearly. The needs and abilities of the students were reflected in the program guides. The scope and sequence was clear and complete for each social science discipline. The skills to be learned and the criteria for evaluating student progress were well delineated.

Most student learning activities were classroom oriented. They included listening to lectures, discussions, individual study and reading, and exposure to audiovisual presentations. Outside activities included individual research, report writing, homework, and limited use of community resources.

The learning materials were varied. Typical materials included the use of multiple texts, reference books, locally produced handouts, films, filmstrips, tapes, and locally and commercially developed transparencies,

maps, globes, and pictures. Videotapes were also used in conjunction with educational television. Most activities occurred in the self-contained classroom. Sometimes, double rooms were used for large-group instruction. A major weakness was the observed lack of coordination between the schools. This made it difficult to ensure that all students were receiving equal learning opportunities in the social studies.

Except for the junior high school course in Ohio State history, students were grouped by the guidance counselors according to reading ability. There was some individualized grouping in tutorial relationships. Teachers gave extra help to students who were having difficulty, either individually or in small groups. The usual class size ranged from thirty to thirty-five students.

Movies, filmstrips, overhead, and opaque projectors were readily available. In addition, students had opportunities to use tape recorders, record players, videotape machines, television, and blackboards.

Student evaluation was also varied. Academic and social difficulties were reported to the guidance department in written or oral forms. Report cards were issued four times each year. Students received letter grades, which were a composite of class tests, homework, teacher opinion of ability to recite fact-recall information, teacher opinion of student interest, effort, ability, obedience, and willingness to participate in class activities. In addition, Interim Reports were issued three times each year between report cards. Students may be evaluated in a parent conference on request.

The facilities at Albion Junior High School were new and attractive. The carpeting, pastel colors, and open spaces provided an atmosphere with great potential for enthusiastic learning. The building provided for both self-contained and double-classroom size groups, with the creative use of flexible space. The sequence at Albion School includes two semesters of geography, two semesters of American history, and one semester of Ohio State history. World history is a two-semester elective.

The Center Junior High School is older than Albion. There was no carpeting, and building maintenance seemed to be more difficult. Without the sound-reducing qualities of carpeting, Center seemed noisier than Albion. The desks and other school furniture were also older than at Albion; however, they were adequate. The social studies program at Center was similar to Albion: Two semesters each of geography and American history, plus one of Ohio State history. World history was a two-semester elective in Grade 9. Activities at Center exposed students to more role playing and simulations than at Albion. Lower ability students used texts and workbooks that were appropriate for their reading levels. Class size was a bit smaller at Center than at Albion, with twenty-five to thirty students per class at Center. Plans were already made to introduce minicourses, beginning in the 1975-1976 school year.

The facilities at the high school were adequate. The new wing and the new library loft added to the attractiveness of the building. The classroom

configurations were conventional. The new library loft provided useful open space, and could accommodate up to four classes. The furniture in the loft permitted separate desks and chairs, rather than the less comfortable one-piece units.

The requirements for graduation include two and one-half units of social studies. One-half is required in each of American history and American government. The remaining units may be selected from the various offerings of the social studies department. These offerings included economics, behavioral science, humanities, advanced American history, and advanced American government. Simulations and the use of resources were more frequent in the high school than in the junior high. The texts used were the Tenton social studies series published by Holt. These texts were adequate.

Grouping procedures at the high school were different from those at the junior highs. This was because of the elective nature of the program. Although classes consisted of twenty-five to thirty students, multigrade groups were considered an advantage. The atmosphere was relaxed and open. Student activities were similar to those of the junior high school grades, with the exception that there were fewer fact-recall types of evaluation.

Recommendations and Suggestions for the Secondary Social Studies Program

1. It is recommended that a list of suggested learning activities be included in the teacher guides.

2. It is recommended that adequate coordination be provided in both junior high schools to ensure that the learnings in social studies are directed toward the same goals. The multi-text approach in the junior high schools can be very effective; however, this approach can preclude the achievement of goals when the program is not coordinated.

3. It is recommended that the use of the conceptual approach,as described in the district's published social studies program,be combined with the inquiry and problem-solving approach to social science learning. It is suggested that concepts in economics be included in the junior high school program.

4. It is recommended that efforts be continued to expand available library resources. It is suggested that the public library be used more frequently as a student resource.

5. It is recommended that greater use be made of community resources. Some of the ways these resources can be used include: 1) field trips to municipal agencies, such as the courts, police, and museums, 2) invite relevant members of the community to make class presentations.

6. It is recommended that specified performance objectives be established to facilitate the evaluation of student progress. It is further recommended that achievement tests be developed to reflect the use of these objectives.

7. It is recommended that the existing social studies program be expanded to include a review unit on civic responsibility. Such a unit should include learning activities in ethical values, psychology, sociology-anthropology, economics, political science, and American government and politics and international government and politics. Consideration should be given to using the ERCA experimental program in this area, which will be available in spring, 1976.

SECTION III: SUMMARY AND CONCLUSIONS

Since 1970, public school systems have experienced an increased interest in educational accountability and a growing concern for program improvement. For these reasons, Dr. Edwin Boy, Superintendent of the Strongsville City Schools, requested in June, 1974, that the Educational Research Council of America conduct an evaluation of Strongsville's instructional program.

In response to that request, the Department of Evaluation and Research developed an evaluation design and conducted an analysis of Strongsville's K-12 instructional program. The design was based on a variety of evaluative approaches to facilitate the identification of program strengths and weaknesses. These strengths and weaknesses, and the related recommendations and suggestions are summarized in this section of the report.

The Strongsville instructional program may be characterized as having excellent potential. Parts of the existing program were outstanding. For example, portions of the mathematics and secondary-level language arts program as well as the corrective psychological services and secondary-level library facilities were excellent. Other parts of the instructional program could, with some revision, become outstanding. Examples include the foreign language program and secondary-level social science program. Table 6, on the following page, summarizes the Survey Staff's general reactions to each subject in the instructional program.

Table 6 - - Evaluation Summary of the Strongsville Instructional Program

Subject	Elementary				Junior High				Senior High			
	E	G	F	L	E	G	F	L	E	G	F	L
Humanities												
Art			X				X			X		
Music			X				X			X		
Language Arts			X			X				X		
Library Support				X	X				X			
Foreign Languages	---	---	---	---		X				X		
Mathematics		X				X						
									X			
Occupational Education												
Business	---	---	---	---		X				X		
Industrial Arts	---	---	---	---		X				X		
Homemaking	---	---	---	---		X				X		
Vocational	---	---	---	---	---	---	---	---		X		
Physical Education			X				X			X		
Health Education			X				X				X	
Science		X				X				X		
Social Science		X				X				X		

E Excellent
G Good
F Fair
L Limited either because of facilities or general format

People genuinely interested in education search unceasingly for ways to improve instructional programs. The recommendations and suggestions offered in this report represent an attempt to provide practical guidelines for instructional revision and improvement. The effects of this evaluation will depend ultimately on how these recommendations are used. There are at least four ways in which instructional programs can be revised. A brief description of each will highlight the major advantages and disadvantages of the various approaches to program revision.

The first way is called tinkering. It consists of minor modifications and changes that are experimental, usually trivial. It is frequently used despite its relative ineffectiveness and lack of endurance. Tinkering is often referred to as a "scissors and paste" method. Changes in the curriculum resulting from tinkering are generally superficial alterations in the learning activities of students.

A second, more comprehensive approach toward curriculum change is adaptation by the professional staff. Existing programs are altered to satisfy local needs within the practical limitations of the system. Preparation and implementation of such revision necessarily include cooperation among many of the school personnel. From a pragmatic point of view, this method is a practical way to improve curriculum programs if the staff leaders are consistent in keeping the programs comprehensive and up-to-date. Strongsville's mathematics and social science programs are examples.

Wholesale adoption of programs is a third type of curriculum change. As its name suggests, this approach involves the complete adoption of an entire program developed by external school agencies. Little or no modification or adaptation to the local situation is made. Limited creative thinking or planning on the part of the local district is required; installation of the program is generally mechanical and rather inflexible.

A fourth type of curriculum program change is fundamental revision. This is probably the most valuable and effective method of curriculum program improvement. It starts with the most basic considerations of the instructional program. This "start from scratch" process requires an initially sound and articulate philosophy of education. This necessitates a review or a redefinition of goals, aims, and objectives. The suggestions of subject area specialists, psychologists, and other specialists in education can provide valuable assistance in such a reassessment process. Other general considerations include needs at the individual, community, state, and national level; the scope and sequence of units; balance; and provisions for continuous evaluation, research, and development. Guidelines for instructional organization and use of teacher aids are developed, only to be continually reevaluated and revised. Few, if any, individual school systems can afford this type of development, and a cooperative effort by several interested school systems is almost a necessity. This type of revision depends in part upon financial assistance from foundations,

business, industry and individuals, and upon strong leadership, and a full-time program development staff assisted by expert consultants.

Development of an efficient and coordinated plan for strengthening an instructional program is based on a determination of priorities for action. These priorities reflect concerns of the school board, administrators, school staff, and community. Such factors as the purposes and objectives of the instructional program, available resources, qualified personnel, time and energies must be weighed in any decision for the future. The following guidelines are suggested as aids in establishing future priorities for action.

1. The educational philosophy and objectives of Strongsville's instructional program should be articulated in a concise and operational manner.

2. The proposed actions should be consistent with Strongsville's philosophy and objectives.

3. The potential results should be worth the time, energy, resources, and personnel required to make the change.

4. Implementation of the recommendation can improve the learning opportunities for a substantial number of students.

5. The facilities and/or equipment required can be made available with a reasonable investment in education.

6. Staff members should be interested and willing to implement the recommendations.

The first guideline listed above merits emphasis. The statement of educational philosophy is truly a crucial task. Skillful formulation of Strongsville's philosophy and objectives will provide a rational basis for determination of priorities as well as instructional program development

and revision.

After priorities are established, plans and procedures for implementing the accepted recommendations in the various subject areas can be developed. The following pages contain a resume of the major recommendations for each subject area in the same order as presented in the body of the report. In some cases these recommendations are composite summaries of a number of specific and detailed suggestions considered earlier.

Recommendations and Suggestions for the Humanities Program (including fine arts and music)

1. It is recommended that continued effort be made to provide adequate facilities, supplies, library resources, and staff for the humanistic disciplines in all of the Strongsville schools.

2. It is recommended that, when funds are available, both an art supervisor and a music supervisor be hired for the district to coordinate a sequential curriculum in each discipline for K-12.

3. It is suggested that, in anticipation of formal legislative requirements, at least one Carnegie Unit of music credit at the high school level be required for graduation. In addition, it is recommended that one course each in general music and art be mandatory for all students in Grades 7 and 8.

4. It is recommended that at the elementary level, expanded opportunities be offered to all children to develop listening skills, receive instruction in band instruments, and to learn art from specialists.

Recommendations and Suggestions for the Junior and Senior High School English Programs

1. It is recommended that procedures be established to evaluate continuously the present program. It is suggested that the implementation of a consistent testing program based on standardized tests be considered.

2. In view of a system-wide decline in reading ability at the time of entry into seventh grade, it is recommended that:

   a. The English program in the junior high school be redesigned to emphasize the teaching of reading skills as contrasted with the development of literary skills.

   b. Remedial reading be available for credit as needed at both the junior and senior high school levels.

3. It is recommended that all students be ensured some experiences with the fundamentals of literature and language during the course of their English sequence.

4. It is recommended that more provision be made for academically talented students, including Advanced Placement courses at the high school.

5. It is recommended that the teacher preparation load be reduced. This could be accomplished through the reorganization of course content.

Recommendations and Suggestions for the Foreign Language Program

1. It is recommended that coordination be encouraged by establishment of a single foreign language department headed by a chairman or coordinator.

2. It is recommended that a detailed course of study with specific guidelines and objectives for the Foreign Language Program be developed for the Strongsville District. A subsequent review of foreign language materials and aids will insure compatibility with these expressed objectives.

3. It is recommended that classroom groups be organized in a more homogeneous manner.

4. It is recommended that the Grade 9 beginners' course be discontinued and that a Level I course in all three languages be offered in Grade 10. This could ensure better continuity through the secondary language program.

Recommendations and Suggestions for the Mathematics Program

1. It is recommended that continuity and communication among all school mathematics programs in the Strongsville District be increased. Such cooperation would be facilitated by appointment of a mathematics coordinator for K-12.

2. It is recommended that a discriminating criterion be adopted as the basis for placement of students in the Grade 8 algebra course. Continuous monitoring of performance at the conclusion of Grades 8 and 9 algebra courses will enable appraisal of the predictor's validity and justification for revision of the criterion measure.

3. It is suggested that the summer school program at all levels be revised to include enrichment as well as remedial learning activities.

4. In view of the high attrition rate in the secondary schools mathematics program, it is recommended that a committee of counselors and teachers investigate ways to involve more students in mathematics.

Recommendations and Suggestions for the Occupational Education Program (including business, career education, homemaking, and industrial arts.)

1. It is recommended that the courses presently offered in the Occupational Education Program be continued subject to the stipulation that updating of content in accordance with modern trends and technological advances occurs in alternate years.

2. It is recommended that safety measures receive prompt attention.

3. It is recommended that future purchasing policies for the Business Program allow for acquisition of various brands of business machines on an annual schedule that spreads the financial costs of depreciation over a four- or five-year period.

4. It is recommended that Vocational Education classes be continued and supported to an extent considered feasible in view of the fact that certain courses will be transferred to the new Joint Vocational School.

5. It is recommended that coeducation in Industrial Arts and Homemaking be encouraged.

6. It is recommended that efforts to provide adequate materials, resources, and staff for the Industrial Arts and Homemaking courses be continued, with special attention to the supplying of foods for the latter.

7. It is recommended that adequate safety equipment be provided and utilized in Industrial Arts.

8. It is recommended that the Industrial Arts Program at the junior high school be expanded to include the fundamentals of sheet metal fabrication and plastics, and at the high school level to include offerings in plastics, home repairs, and small engine repairs.

Recommendations and Suggestions for the Physical Education and Health Programs

1. It is recommended that the equipment and facilities for both Health and Physical Education be improved at all levels to meet the standards of the Athletic Institute.

2. It is recommended that the Physical Education course of study be revised and coordinated so as to avoid excessive gaps and to satisfy the standards of the State of Ohio Board of Education.

3. It is recommended that the Health Education program be revised in accordance with a K-12 plan that should facilitate communication and cooperation among different levels.

4. At the elementary school level, it is suggested that either the number of qualified physical education instructors be increased or their involvement with classroom programs as resource people be encouraged.

Recommendations and Suggestions for Pupil Personnel Services

A. Psychological Services and Primary Prevention

1. It is recommended that an active preventive mental health education program be implemented in the schools. Current corrective efforts have been exemplary.

2. It is suggested that a Positive Mental Health Advisory Committee composed of administrators, psychological and counseling personnel, and community mental health personnel be established to provide support for primary prevention programs.

3. It is recommended that the early identification and screening program currently being conducted at kindergarten be continued.

4. It is recommended that an affective education program for students be developed and implemented.

B. Counseling, Guidance, and Group Testing Programs

1. It is recommended that a comprehensive and integrated guidance program be developed spanning elementary through high school levels.

2. It is recommended that a Director of Guidance be employed at the high school to facilitate implementation and coordination of the counseling and guidance programs.

3. It is recommended that a group guidance program designed to utilize classroom teachers and to enhance the relationship between counseling and teaching staffs be implemented.

4. Review of the quasi-administrative responsibilities of counselors is desirable, especially in view of the excessive student/counselor ratio when the responsibilities of the vocational specialist are considered.

C. School Discipline Program

1. It is recommended that more positive approaches to behavior problems and school suspensions be adopted immediately, concurrent with abandonment of current superficial programs.

2. It is recommended that the administrative staff reassess its approach to the problems of student smoking.

Recommendations and Suggestions for the Elementary School Reading and Language Arts Program

1. It is recommended that an in-service education program be provided for all teachers to help them examine thoroughly and study in-depth all basal and supplemental materials adopted for use.

2. It is suggested that instruction concerned expressly with spelling be included in the primary grades.

3. It is recommended that a handwriting program for skill development be part of the K-6 program.

4. It is recommended that the evaluation procedures currently used in the primary grades be reviewed and information derived from such testing be made available to all elementary school teachers.

Recommendations and Suggestions for the Science Program

1. It is recommended that the K-12 Science Curriculum Committee be continued and that it be particularly concerned with new ways to integrate the K-12 science program with other areas of the curriculum.

2. It is recommended that a wider variety of student learning materials be provided at all grade levels.

3. It is recommended that students have increased opportunities to learn science outside the classroom and that field trips be an integral part of the K-12 science program.

4. It is recommended that provision be made for more individualization in science learning activities at all grade levels.

Recommendations and Suggestions for the Social Studies Program

1. It is recommended that performance objectives be specified in behavioral terms that facilitate evaluation of student progress.

   If a lack of agreement is found between the Social Studies Program's objectives and those of current pupil learning activities, then revision of one or both of these areas is desirable.

2. It is recommended that greater use be made of community resources.

3. It is recommended that efforts be continued to expand available library resources at the secondary level and audiovisual aids at the elementary level.

4. It is recommended that adequate coordination be provided in both junior high schools to ensure that their programs are directed toward the same goals.

Additional Recommendations and Suggestions for the Strongsville K-12 Instructional Program

1. It is recommended that the educational philosophy and objectives of Strongsville's instructional program be articulated in a concise and operational manner.

2. It is recommended that educational objectives be specified in a behavioral manner so as to facilitate both integration and evaluation of each subject in the K-12 instructional program.

3. It is recommended that provision be made to insure continuous evaluation and reevaluation of the programs to aid in their revision and development

4. It is recommended that lines of communication be improved among all professional school staff.

   Without adequate communication, misunderstandings of district policy, traditions, and requirements are likely to result. The sharing of knowledge, concerning new techniques to improve learning, is inhibited by adventitious exchanges.

5. It is recommended that adequate school time be made available for members of the professional staff to conduct cooperative planning and coordination.

6. It is recommended that more provision be made for academically talented students.

7. When financial resources are available, additional equipment and supplies could alleviate many limitations in such areas as art, music, physical education, and science.

Money alone cannot guarantee educational excellence, but it is necessary. Strongsville has a low per-child assessed tax valuation compared with the Cuyahoga County average. Improved physical facilities and supplied can contribute to the development of stronger programs.

APPENDIX A

_____ School

_____ Teacher

1) What grades are departmentalized?

_____

2) a) To whom do you go for help in mathematics?

_____

b) Is helping in mathematics a part of this person's responsibility?

_____

3) a) Is there ability grouping?

b) If so, what kind?

c) How are groups determined?

d) Are different materials used with different groups?

e) Are classrooms self-contained? (i.e. Do you teach all children all subjects?)

4) Class size?
Is there a teacher's aid available?

5) Is there a mathematics coordinator?

6) How much time/days is spent on mathematics?

7) What text materials are used?

a) Basic text

b) Supplementary materials

8) What materials are desired, but not available?

9) a) What teaching devices are used?

Overhead? _____ Calculators? _____

Films? _____ Models? _____

Other? _____

b) What equipment is desired, but not available?

10) Is there a summer school program in mathematics?

Remedial? _____

Enrichment? _____

11) What is done in mathematics outside the textbook?

12) Are funds and time available for in-service education? Summer school? Conventions?

13) What tests are used?

How are results used?

14) What mathematics books or magazines are in:

a) the student library? b) the teacher library?

15) a) Are there published goals of education?

b) Are there published mathematical objectives?

16) What are your strengths?

17) What are your weaknesses?

APPENDIX B

EVALUATION OF COMMUNICATION SKILLS

Personal Data

Teacher's Name _____ Grade Level _____

School _____ # of Students _____

I. Identification of Materials

A. Basic Reading Program used for Reading Instruction

1.

a. Basal Reader _____
b. Individualized Reading _____
c. Programmed Reading _____
d. Individualized Learning Packages _____
e. Criterion Referenced Reading _____
f. Language Experience _____
g. Multimedia _____
h. Others _____

Note: Please indicate if a combination of programs is used. Identify each program with name of publishing company and copyright date.

(Circle One)

2. Does the program(s) state its goals? Yes No
If yes, what are the major goals stated?

_____

_____

_____

3. Does the program provide for a wide variety of competency levels in a class? Yes No

4. Are there teacher guides? Yes No

5. Are the guides or teacher materials programmed in such a way that all teachers would understand the program with minimal reorientation? Yes No

6. Do the guides or teacher materials provide student diagnostic materials? Yes No

Identification of Materials (continued)

7. If student diagnostic materials are not provided with program, are there diagnostic instruments available? Yes No
   If yes, what are they? _____

   _____

B. Supplementary Materials used for Reading Instruction
   1. Are supplementary materials used for reading instruction? Yes No
      If yes, please identify.
      a. Series of readers other than basal _____
      b. Workbooks accompanying basal _____
      c. Other workbooks _____
      d. Reader's Digest Skill Builders _____
      e. Literature Samples _____
      f. Reading Spectrum _____
      g. Owl Series _____
      h. Torch Series _____
      i. Invitation to Personal Reading _____
      j. Weekly Student Newspaper _____
      k. Library Books (classroom, school, public) _____
      l. Other _____

   2. Are teacher's guides provided for supplementary materials? Yes No

C. Availability of Equipment to Aid in Reading Instruction

Type of Equipment	Purpose of Use					
	Developmental	Diagnostic	Corrective	Remedial	Enrichment	Other
a. Tape Recorder						
b. Phonograph						
c. Opaque Projector						
d. Over-head Projector						
e. Filmstrip Projector						
f. Film Projector						
g. Skimmer						
h. Tachistoscope						
i. Controlled Reader						
j. Craig Reader						
k. Hoffman Reader						
l. Language Master						
m. Reading Eye Camera						
n. Slide Viewer						
o. Primer Typewriter						
p. Other						

D. Teaching and Learning Strategies

1. Do the components of program provide the following with plans and information for practical daily use?

	Listening	Speaking	Reading	Writing
a. Is there a chart or description of the scope and sequence of skills?				
b. Is the sequencing of skills stated in a clear manner for teachers to understand?				
c. Are the skills identified by grade level?				
d. Is the program designed for developmental teaching?				
e. Would program be appropriate for corrective teaching? for remedial teaching?				
f. Are strategies provided to place a student into the program at his level of competency? (i.e., Is a "quick" test provided to help place a new student into the program?)				
g. Are strategies provided for use in assisting students "entering" the program from another program? (i.e., Student transferring from an i.t.a. Program.)				
h. Are student materials provided for self-learning techniques?				

II. Instructional Procedures	(Check One) Great Deal	Adequate	Inadequate
A. Basic Skill Development			
1. Word Recognition			
Is instruction provided at this grade level for the pronunciation of unfamiliar words through the use of:			
a. Word discrimination	_____	_____	_____
b. Phonetic Analysis			
(1) Consonants	_____	_____	_____
(2) Consonant blends	_____	_____	_____
(3) Consonant digraphs	_____	_____	_____
(4) Vowels	_____	_____	_____
(5) Vowel digraphs	_____	_____	_____
(6) Vowel diphthongs	_____	_____	_____
(7) Syllabication	_____	_____	_____
(8) Patterns of accent	_____	_____	_____
c. Structural Analysis			
(1) Compound words	_____	_____	_____
(2) Inflectional endings	_____	_____	_____
(3) Root words and affixes	_____	_____	_____
d. Context Clues	_____	_____	_____
2. Vocabulary Development			
Is instruction provided at this grade level for the development and expansion of words and concepts through the use of:			
a. Context Clues			
(1) Pictures	_____	_____	_____
(2) Synonyms	_____	_____	_____
(3) Antonyms	_____	_____	_____
(4) Homonyms	_____	_____	_____
(5) Homographs	_____	_____	_____
b. Compound words	_____	_____	_____
c. Root words and affixes	_____	_____	_____
d. Use of glossary, dictionary, and other reference materials	_____	_____	_____
e. Effective word choices	_____	_____	_____
3. Literal Comprehension			
Is instruction provided at this grade level for finding and remembering the answers to who, what, when, and where through the use of:			
a. Finding the main idea	_____	_____	_____
b. Finding subordinate ideas	_____	_____	_____
c. Finding supporting details	_____	_____	_____
d. Phrase and sentence meaning	_____	_____	_____

Instructional Procedures (continued)	Great Deal	Adequate	Inadequate
e. Sequence			
f. Structure			
(1) Punctuation and capitalization			
(2) Grammatical elements			
(3) Antecedents			
4. Interpretive Comprehension Is instruction provided at this grade level for the ability to interpret author's affective purpose through the use of:			
a. Sensory Imagery			
b. Figurative Language			
(1) Simile			
(2) Metaphor			
(3) Idioms			
(4) Hyperbole			
(5) Personification			
(6) Onomatopoeia			
(7) Alliteration			
c. Inference			
d. Conclusion drawing			
e. Fact, Fiction, Opinion			
f. Relationships			
(1) Cause and effect			
(2) Time and place			
(3) Classifying			
g. Reasoning			
(1) Comparison, Contrast			
(2) Analogy			
(3) Evaluation			
5. Critical and Creative Reading Is instruction provided at this grade level for the ability to read analytically and to make judgments through the use of:			
a. Elements of Literature			
(1) Characterization			
(2) Theme			
(3) Plot			

	Great Deal	Adequate	Inadequate
Instructional Procedures (continued)			
(4) Setting			
(5) Style and Format			
(6) Literary Devices			
(a) Point of view			
(b) Mood and tone			
(c) Conflict			
(d) Foreshadowing			
(e) Flashback			
(f) Symbolism			
(g) Figurative language			
(h) Personification			
(i) Repetition			
(j) Rhyme			
b. Types of Literature			
(1) Picture Books			
(2) Prose: Fiction and Non-Fiction			
(3) Poetry			
c. Components of Literature			
(1) Humor			
(2) Suspense			
(3) Adventure			
(4) Irony and Satire			
6. Enriched Reading Is instruction provided at this grade level for the ability to read for enjoyment and self-motivated study in depth through the use of:			
a. Listening to good oral reading of a story by the teacher			
b. Listening to a story told by the teacher			
c. Selecting a story of his choice			
d. Adequate time to read each day for enjoyment			
e. Sharing and discussing books			

B. Evaluation

1. Are provisions included in the instructional program at this grade level to interpret outcomes of student performance or level of performance through the use of:

   a. Standardized Test? Yes No
   If yes, please identify _____

   _____

   b. Informal Inventories? Yes No
   If yes, please identify _____

   _____

   c. Teacher-made Test? Yes No
   If yes, please identify _____

   _____

   d. Daily/Weekly Record Keeping Procedures? Yes No
   If yes, please identify _____

   _____

2. Are provisions included in the instructional program at this level to interpret outcomes in terms of student behavior as it relates to the acquisition of skills, increased comprehension and/or attitude changes through the use of:

   a. Standardized Test? Yes No
   If yes, please identify _____

   _____

   b. Informal Inventories? Yes No
   If yes, please identify _____

   _____

   c. Teacher-made Test? Yes No
   If yes, please identify _____

   _____

   d. Daily/Weekly Record Keeping Procedures? Yes No
   If yes, please identify _____

REFERENCES

Ahmann, J. Stanley, and Marvin D. Glock , Evaluating Pupil Growth (Boston: Allyn and Bacon, 1959).

Alcorn, Marvin D., and James L. Linley, Issues in Curriculum Development (New York: World Book Co., 1959).

The American Alliance for Health, Physical Education, and Recreation, Essentials of a Quality Elementary School Physical Education Program (Washington, D.C.: The Alliance, 1970).

The Athletic Institute, Equipment and Supplies for Athletics, Physical Education, and Recreation (Chicago: The Institute, 1960).

Austin, David B., Will French and J. Dan Hull, American High School Administration (New York: Holt, Rinehart, and Winston, 1962).

Burton, William H., and Leo J. Brueckner, Supervision: A Social Process (New York: Appleton-Century-Crofts, Inc., 3rd edition, 1965).

Connecticut Association for Reading Research, Criteria for Assessing School Reading Programs (Hartford, Connecticut: The Association, 1970).

Cronbach, Lee J., "Course Improvement through Evaluation." Teachers College Record. Vol. 64, May, 1963, pp. 672-683.

Educational Research Council of America, Programmed Activities for the Elementary School (Columbus, Ohio: Charles E. Merrill, 1969).

Educational Research Council of Americal, Programmed Activities for the Secondary Level (Columbus, Ohio: Charles E. Merrill, 1973).

Eichelberger, R. Tony, "Evaluating Ongoing Instructional Programs," in Evaluating Educational Programs and Products, Gary D. Borich, (Englewood Cliffs, N.J.: Educational Technology Publications, 1974), pgs. 348-372.

Goodlad, John I., and Robert H. Anderson, The Non-Graded Elementary Schools (New York: Harcourt, Brace, and World, Inc., 1963).

Hand, Harold, What People Think about Their Schools (Yonkers, New York: World Book Co., 1948).

Hardie, James C., and Fred O. Pinkham, The Yardstick Project (Cleveland, Ohio: The Project, November 26, 1969).

Kerlinger, Fred N., and Elazar J. Pedhazur, "Educational Attitudes and Perceptions of Desirable Traits in Teachers." American Educational Research Journal. Vol. 5, No. 4, November, 1968, pp. 241-247.

Krug, Edward A., The Secondary School Curriculum (New York: Harper & Bros., 1960).

Mort, Paul R., and Francis G. Cornell, A Guide for Self-Appraisal of School Systems (New York: Teachers College, Bureau of Publications, Columbia University, 1937).

National Committee for Children and Youth, Social Dynamite: Conference on Unemployed, Out of School Youth in Urban Areas (Washington, D.C.: The Committee, 1961)

National Council for the Social Studies, Social Education (The Council, December, 1971), pg. 860.

National Study of Secondary School Evaluation, Evaluative Criteria (Washington, D.C.: The Study, 4th Edition, 1969).

Pinkham, Fred O., "The Yardstick Project, Second National Seminar," (Cleveland, Ohio: The Project, November 16, 1970, Xeroxed, looseleaf bound).

Provus, Malcolm, "Evaluation of Ongoing Programs in the Public School System," in Educational Evaluation: New Roles, New Means, Ralph W. Tyler, ed., (Chicago: University of Chicago Press, 68th Yearbook of the National Society for the Study of Education, Part II, 1969), pp. 242-283.

Rosenthal, Robert, and Ralph L. Rosnow, Artifacts in Behavioral Research (N.Y.: Academic Press, 1969).

Sarthory, Joseph A., "Some Sociological Considerations for Educational Decision-Making." Educational Administrations Quarterly, Vol. 4, No. 3, Autumn, 1968, pp. 60-69.

Scriven, M., "The Methodology of Evaluation" (Bloomington, Indiana: Indiana University, 1965, mimeographed), in "A New Role in Education: The Evaluator," by Garth Sorenson, Evaluation Comment, Vol. 1, No. 1, January, 1968, Center for the Study of Evaluation of Instructional Programs, 11. 1-4.

Smith, Edward W., Stanley W. Krouse, and Mark M. Atkinson, The Educators Encyclopedia (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1961), pp. 42-44.

The Society of State Directors of Health, Physical Education and Recreation, A Statement of Basic Beliefs (Washington, D.C.: The Society, 1972).

The State Education Department, Minimum Standards for Ohio Elementary Schools (Columbus, Ohio: The Department, 1970).

The State Education Department, Minimum Standards for Ohio Junior High Schools (Columbus, Ohio: The Department, 1968).

Stake, R.E., "The Countenance of Educational Evaluation." (Urbana, Illinois: The University of Illinois, Center for Instructional Research and Curriculum Evaluation, 1966, mimeographed), in Evaluation Comment Vol. 1, No. 1, January, 1968, pp. 1-4.

Tyler, Ralph W., (ed.), Educational Evaluation: New Roles, New Means (Chicago: University of Chicago Press, 68th yearbook of the National Society for the Study of Education, Part II, 1969).

Wheeler, James E., "Philosophy of Education," Review of Educational Research, Vol. 37, No. 1, February, 1967, pp. 5-20.

Wood, W.T., "How Well Are Our Schools Doing Their Job?" Vital Speeches, Vol. 18, March 1, 1952, pp. 308-311.

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